University Of Alberta
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level A

ATH WORKSHOP

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Morton Botel
Max Beberman
W. W. Sawyer

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MATH WORKSHOP

REVISED EDITION

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"Numo" Sketches

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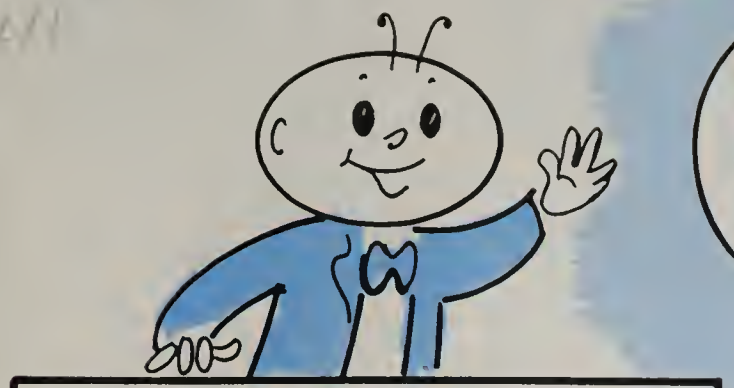

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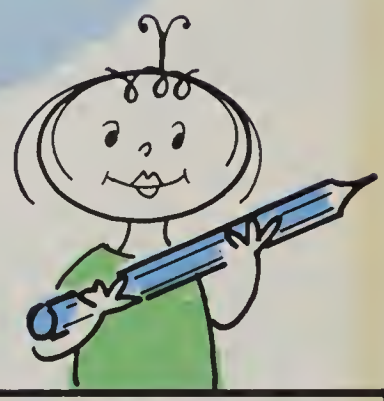

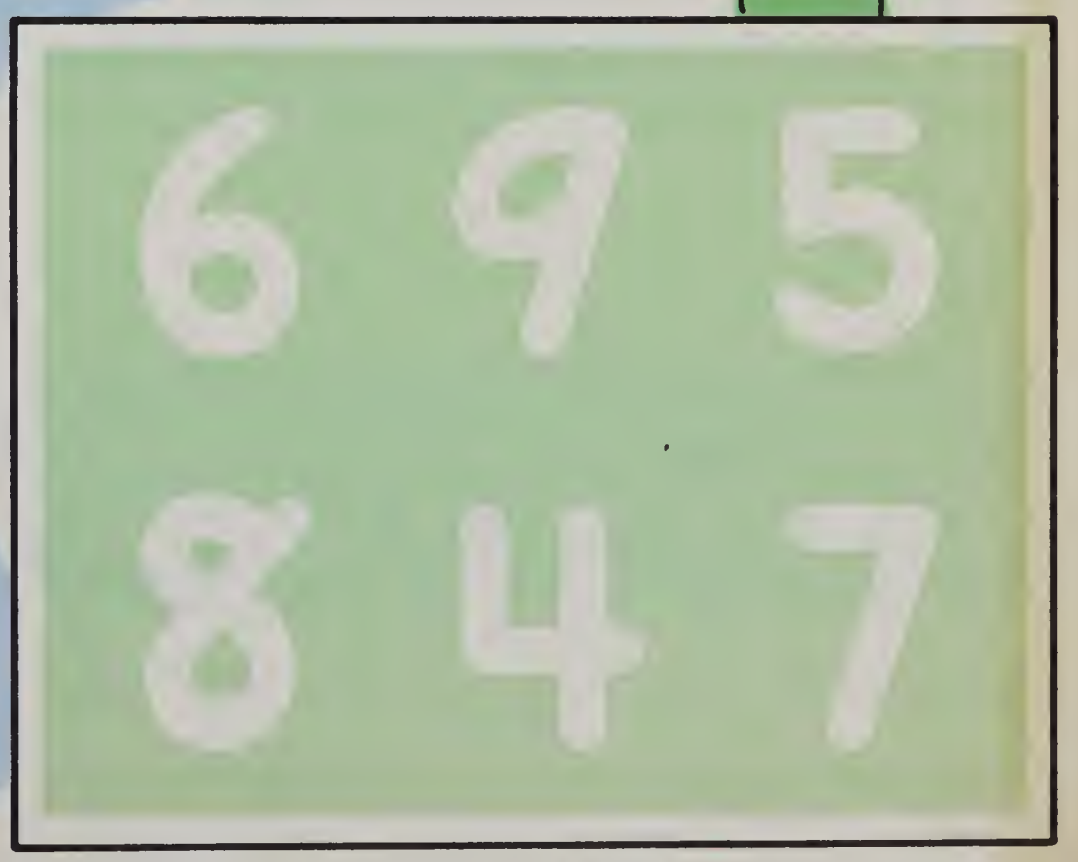

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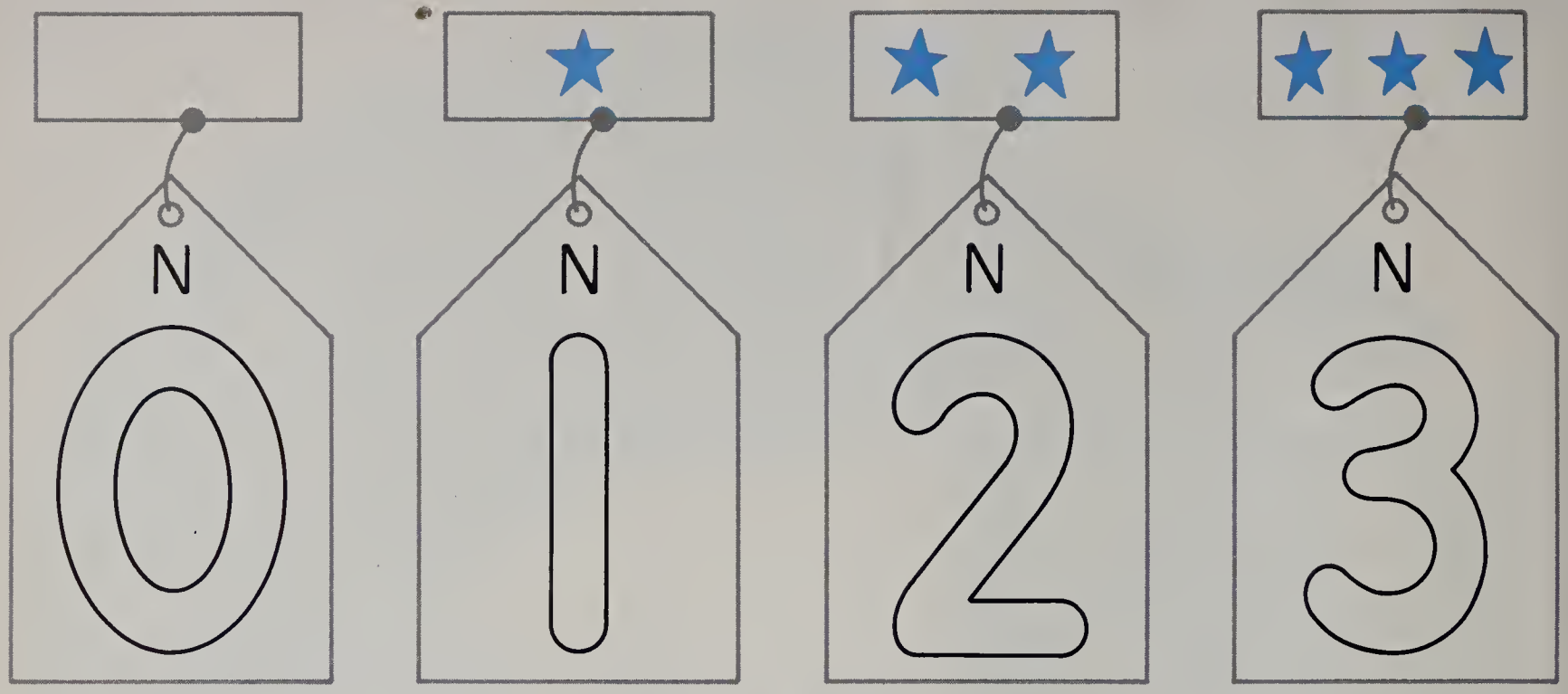

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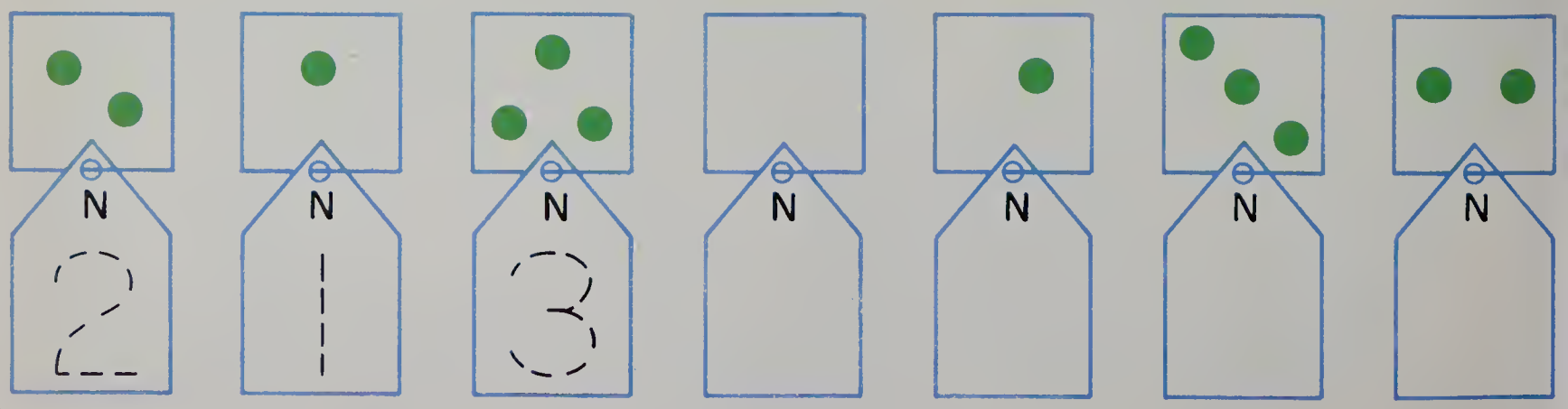

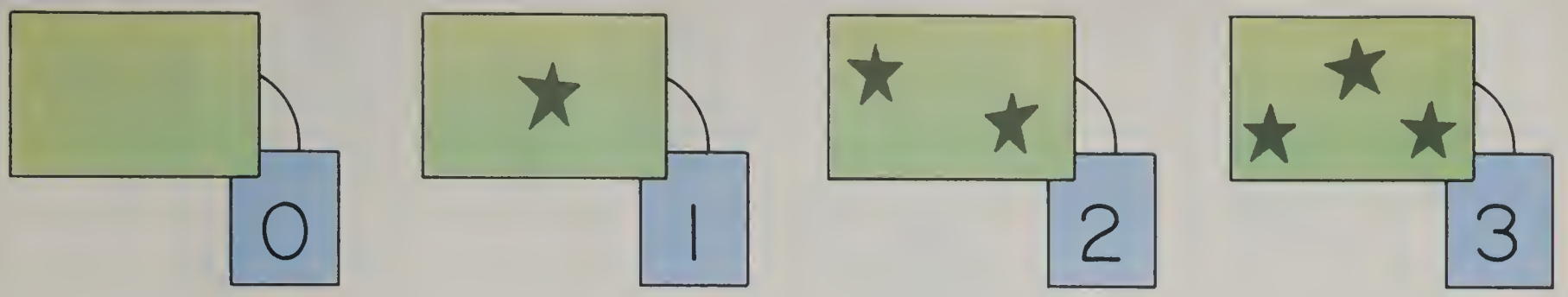

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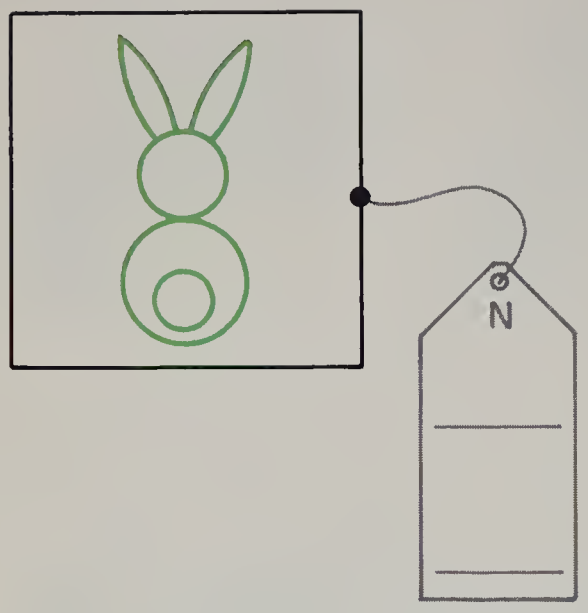
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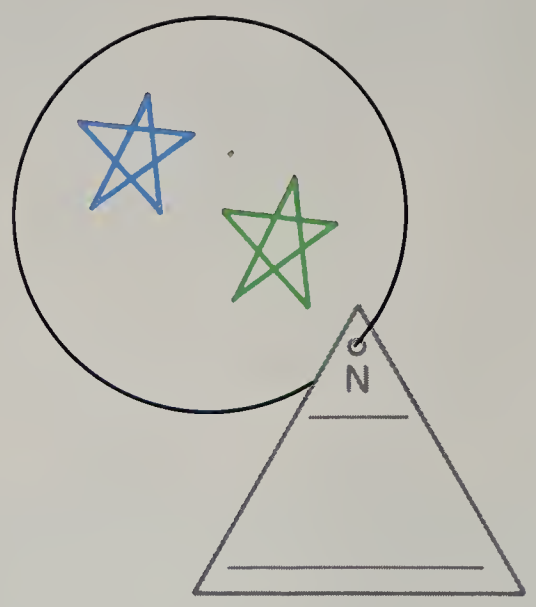
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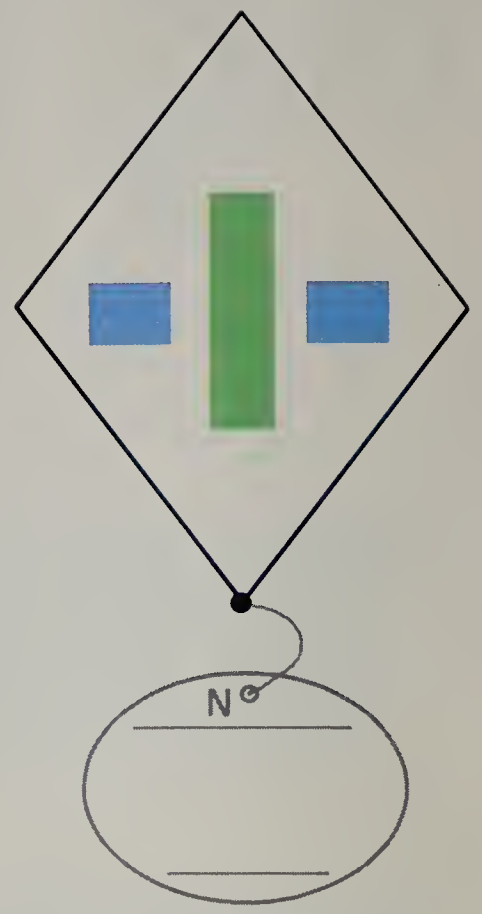
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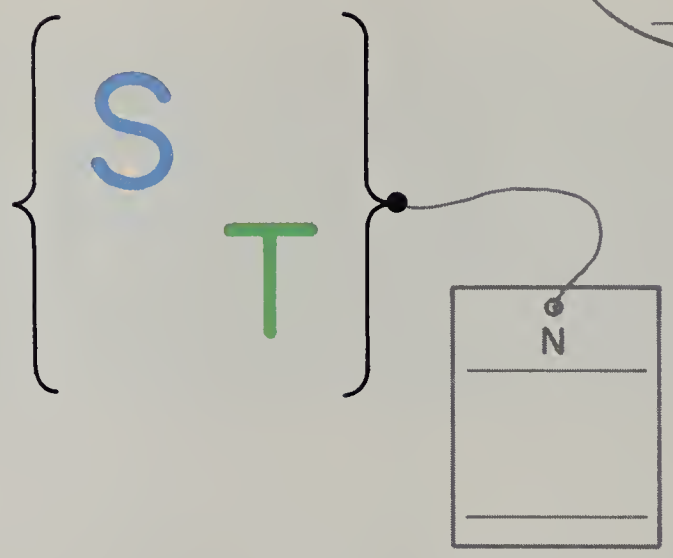
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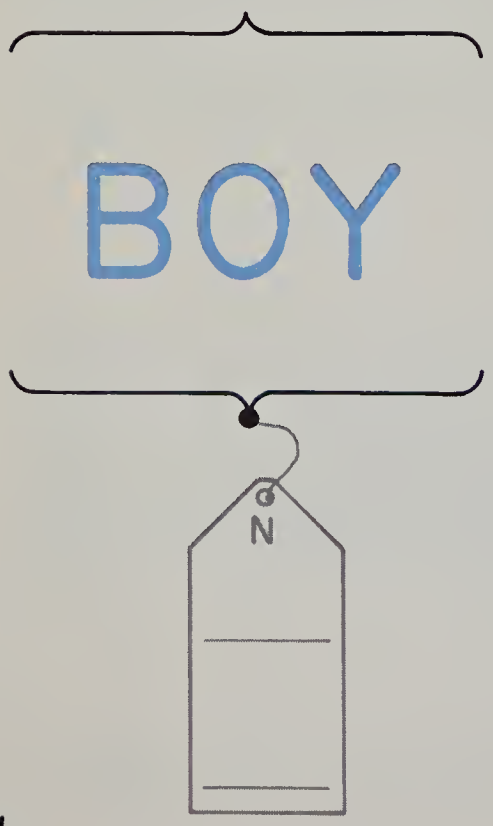
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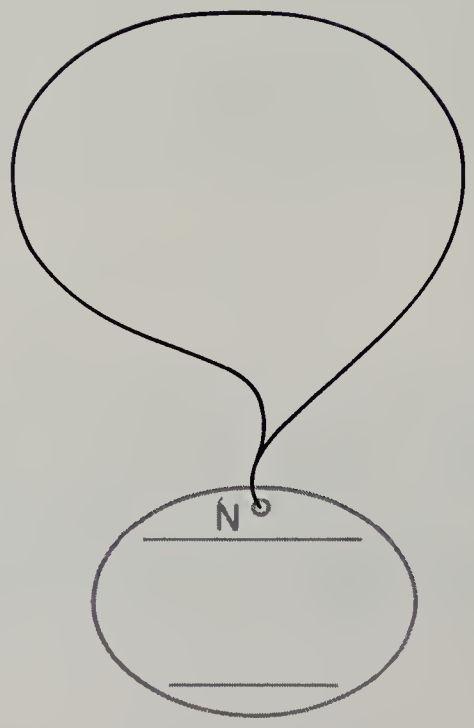
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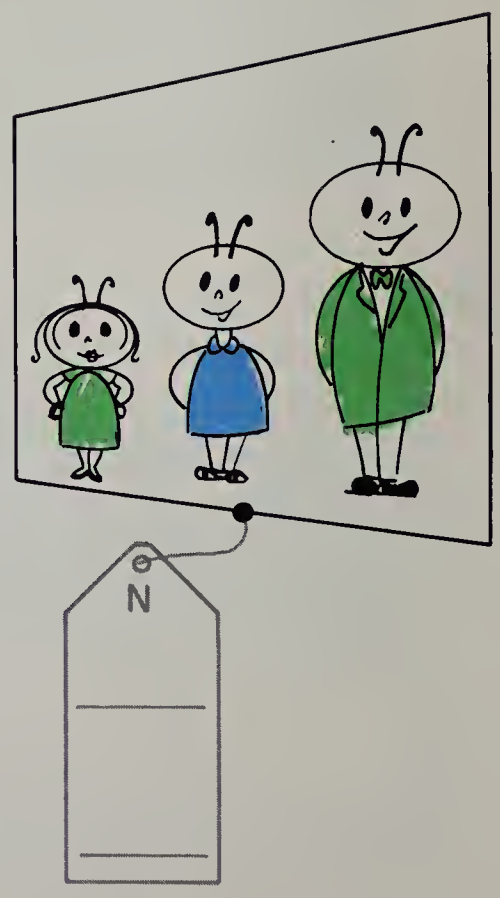
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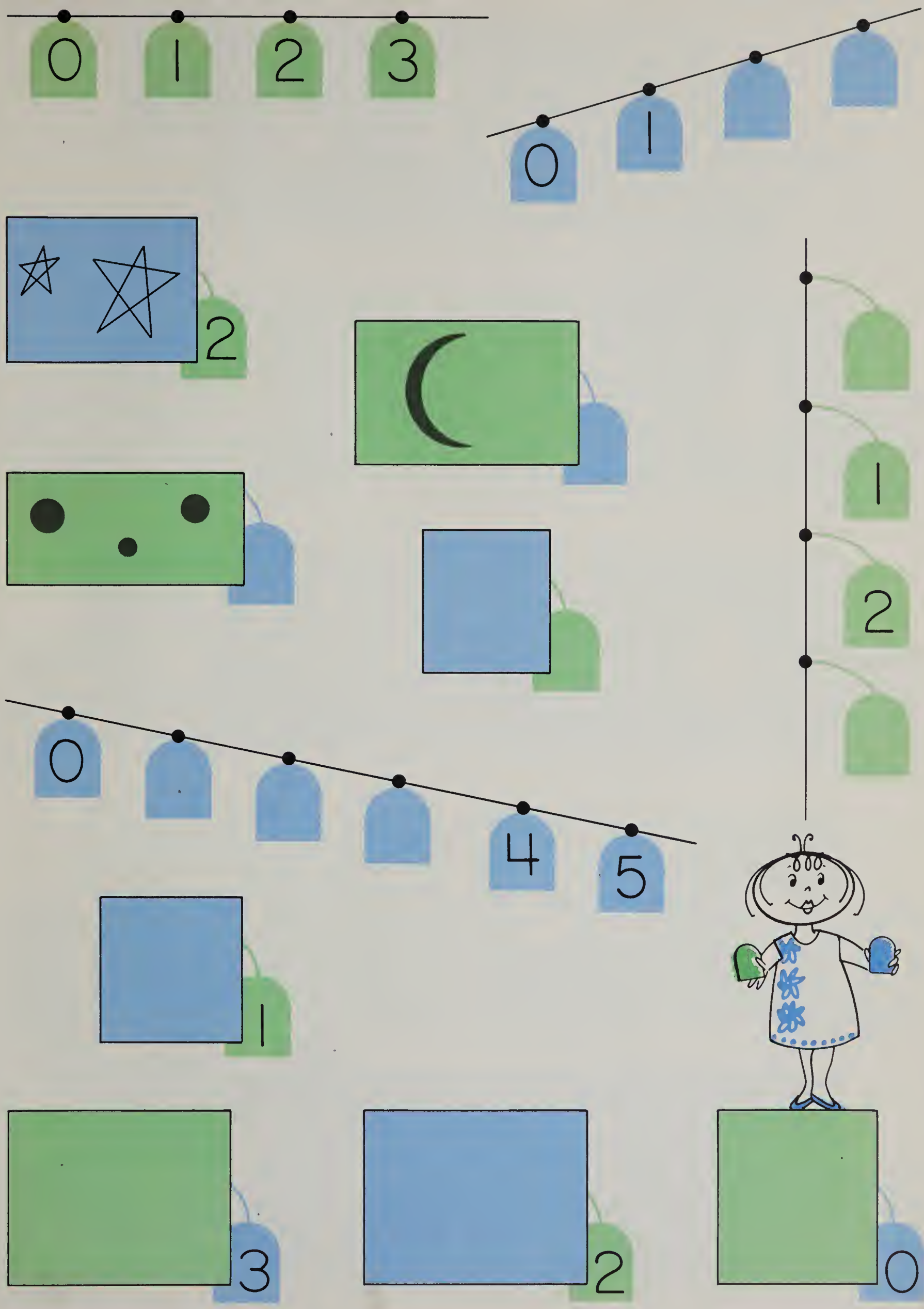
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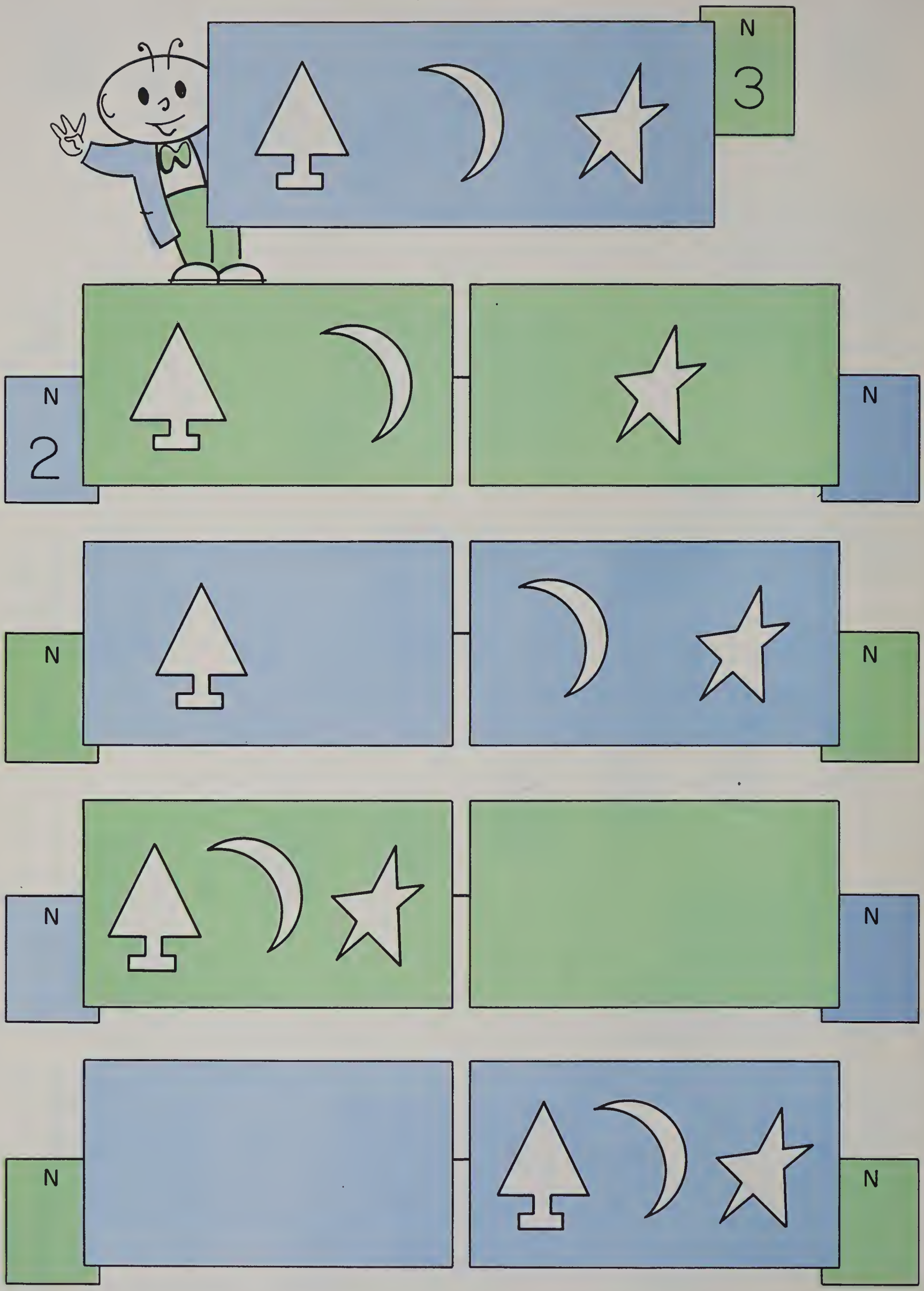
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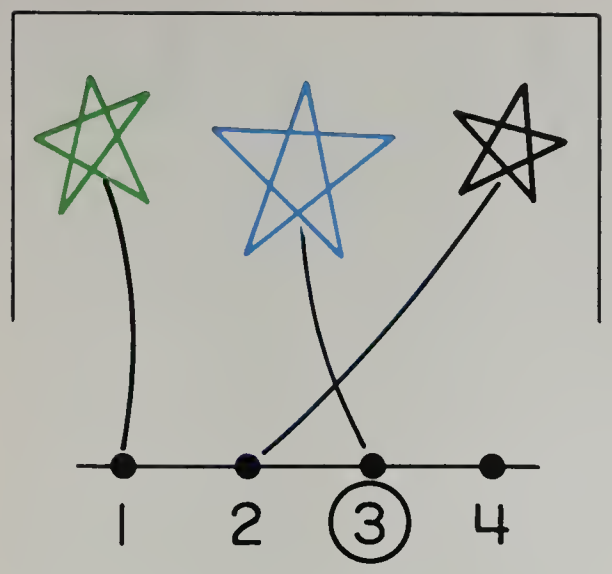
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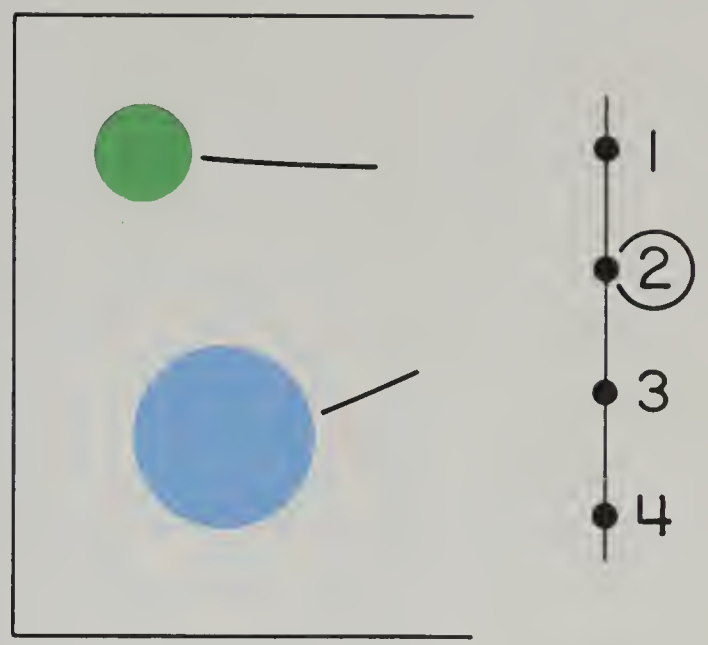
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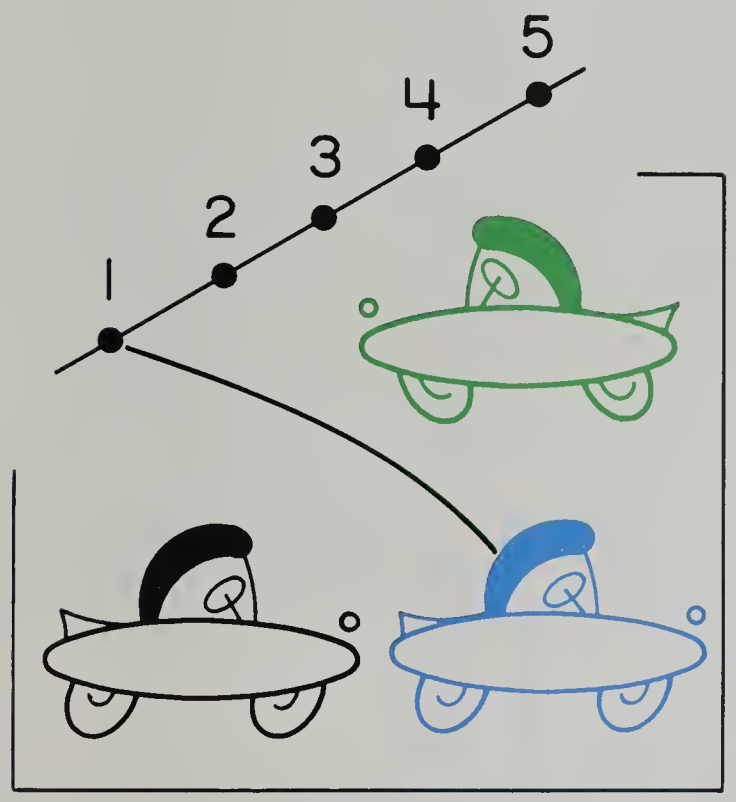
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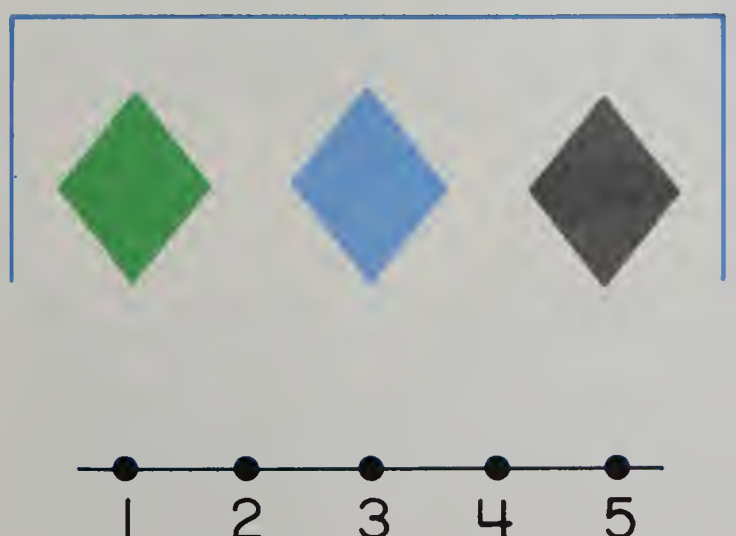
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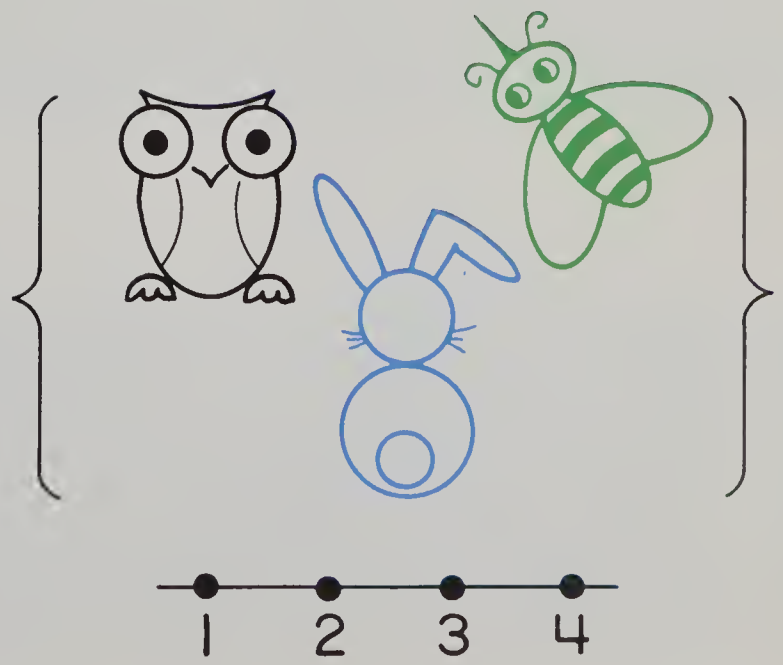
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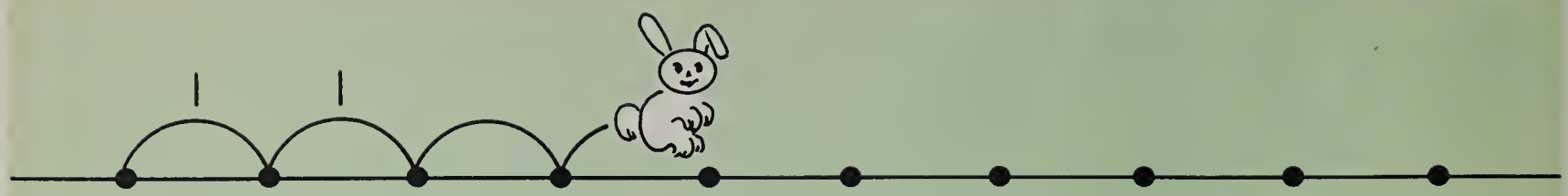

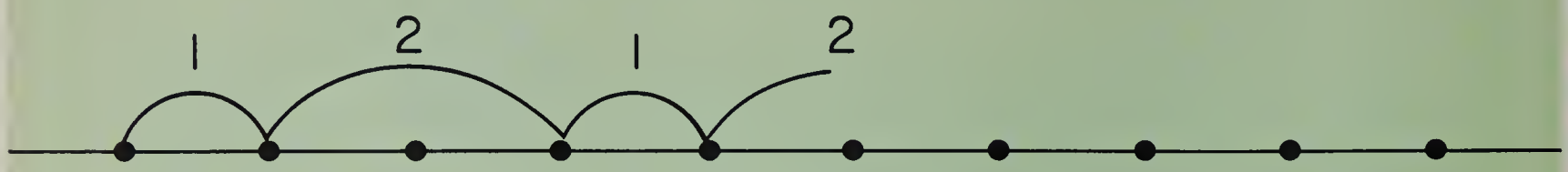

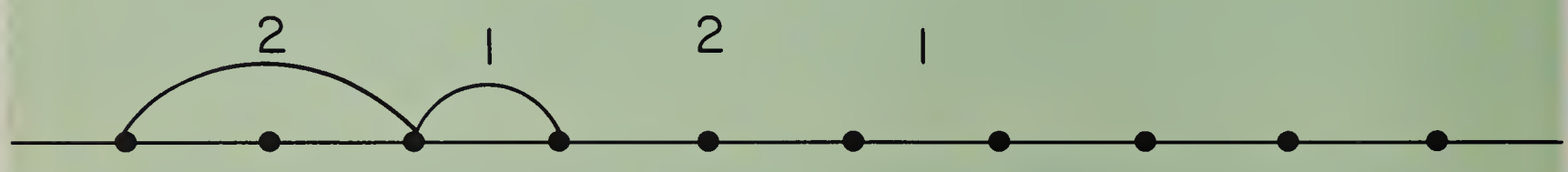

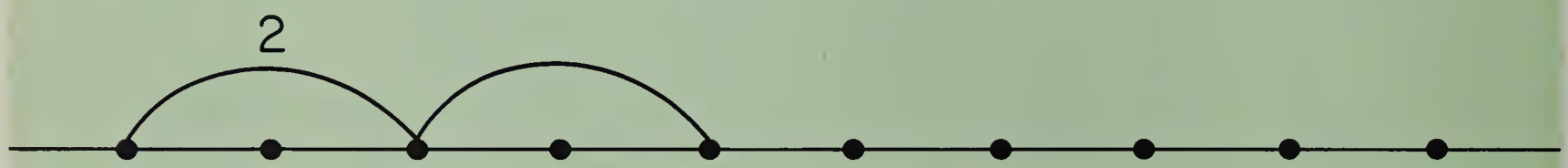

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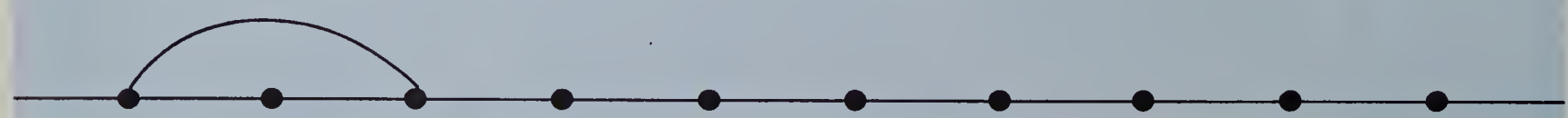

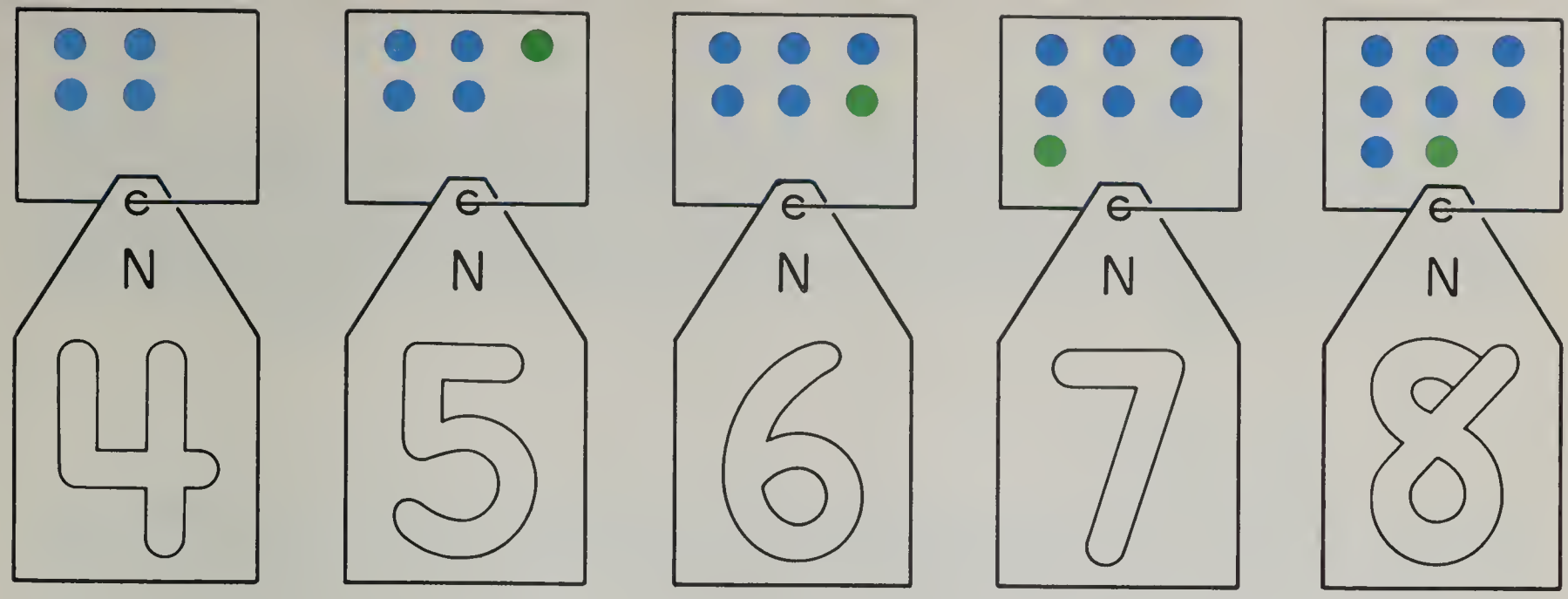

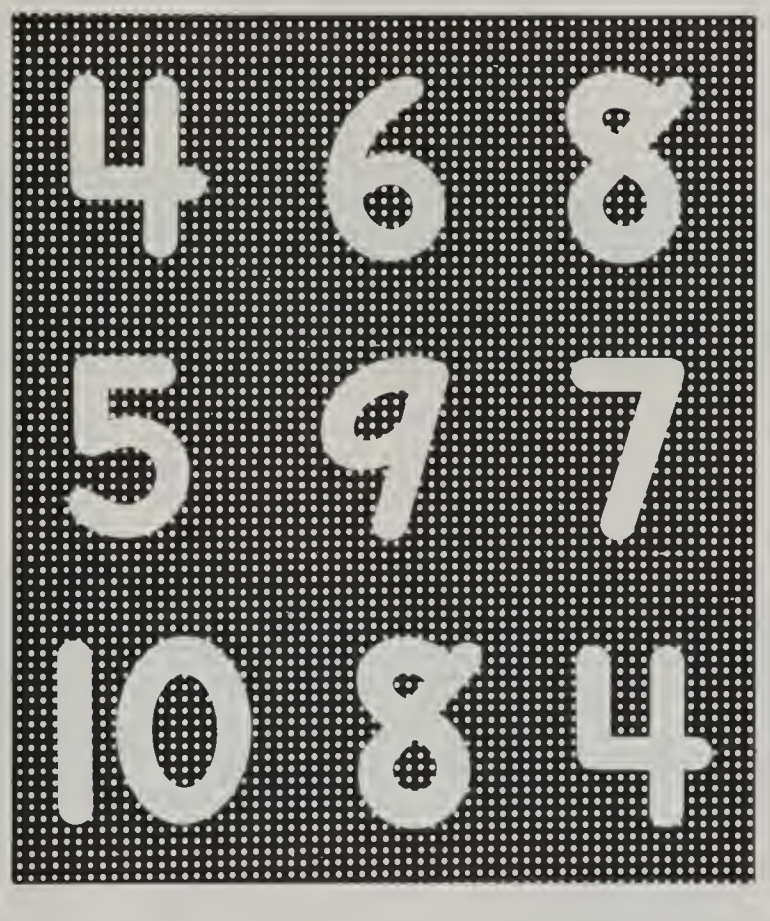

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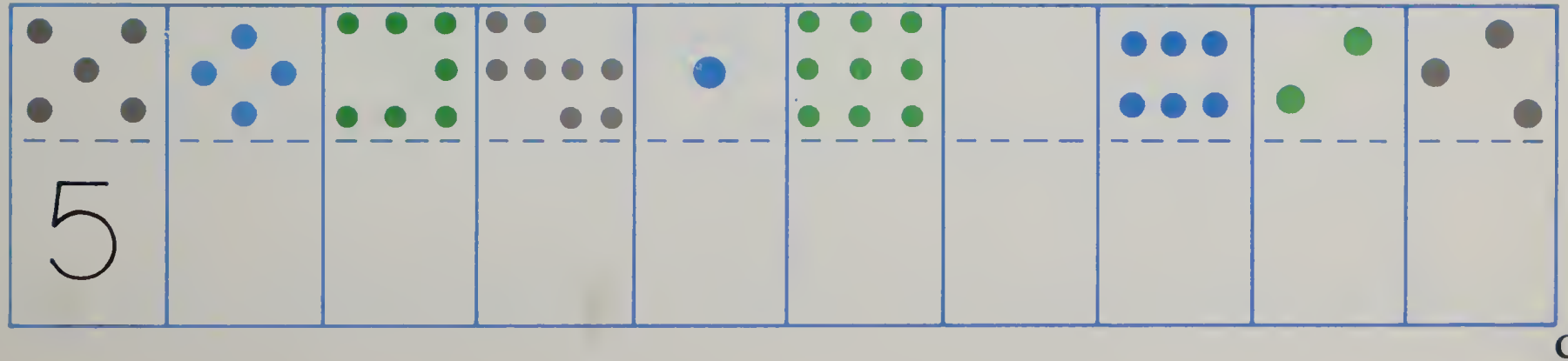

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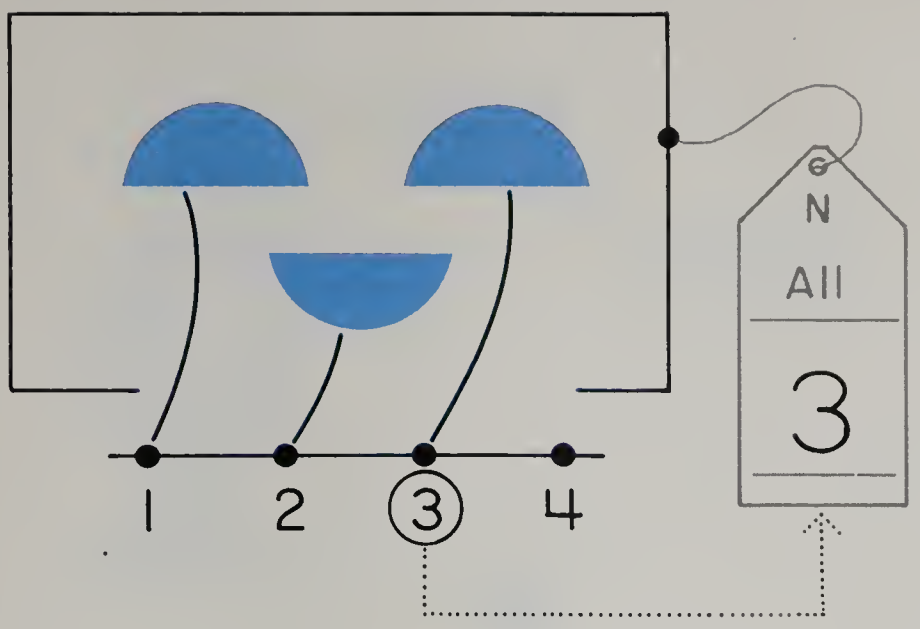
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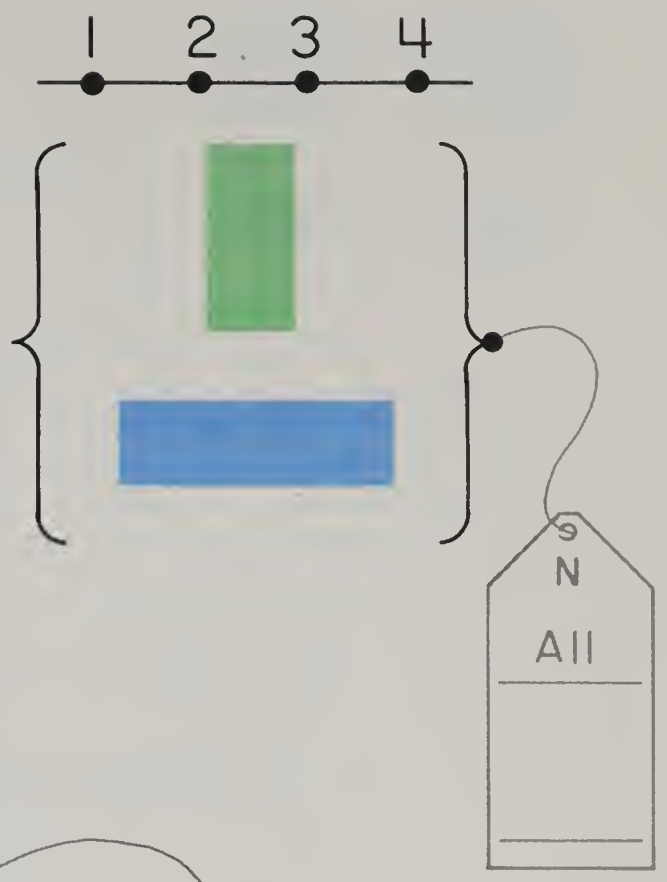
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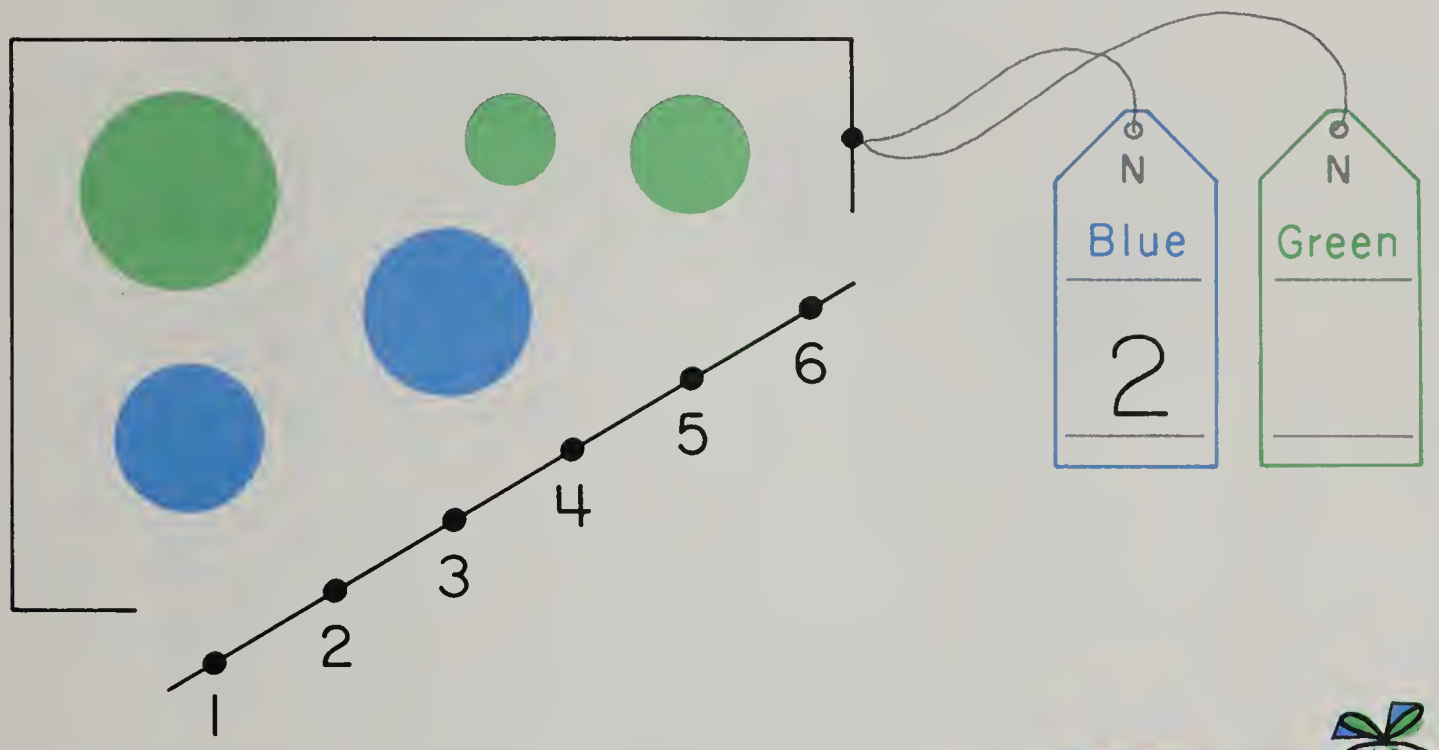
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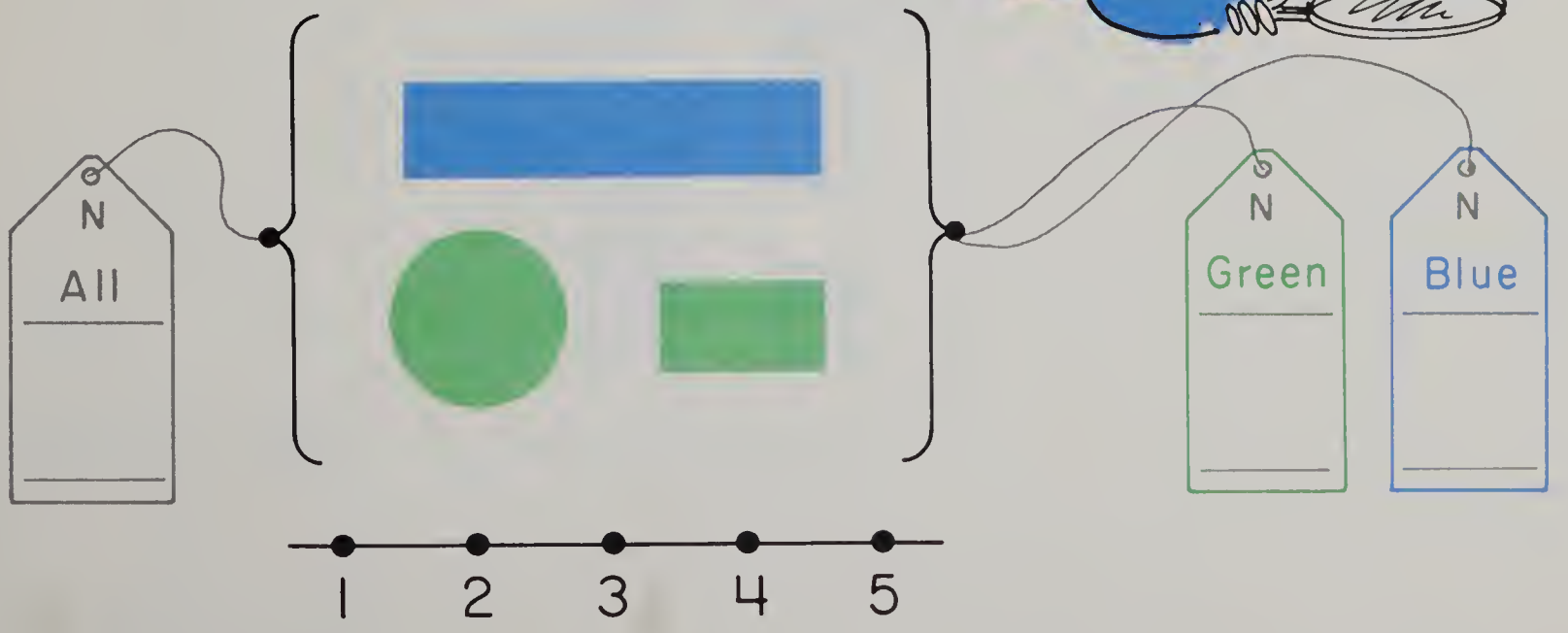
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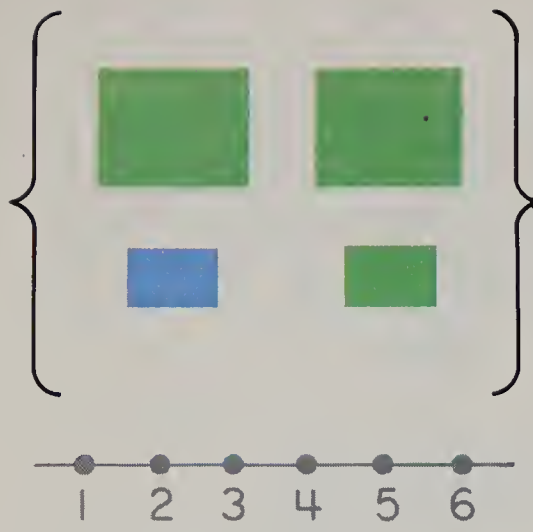

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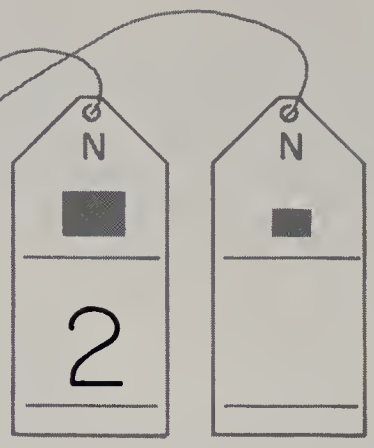
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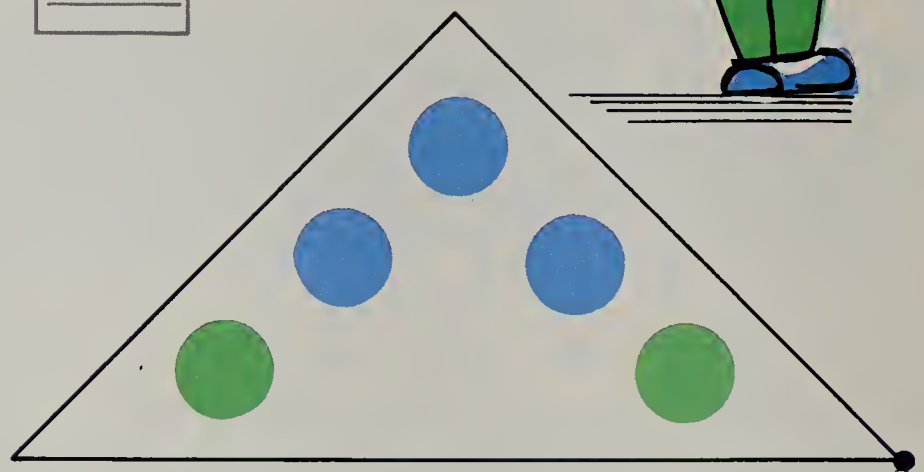

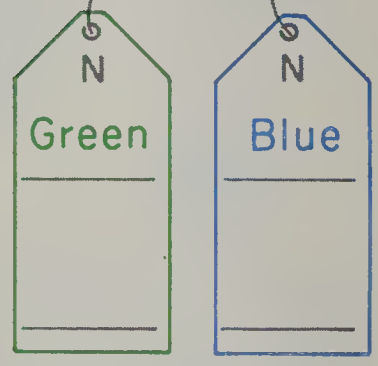
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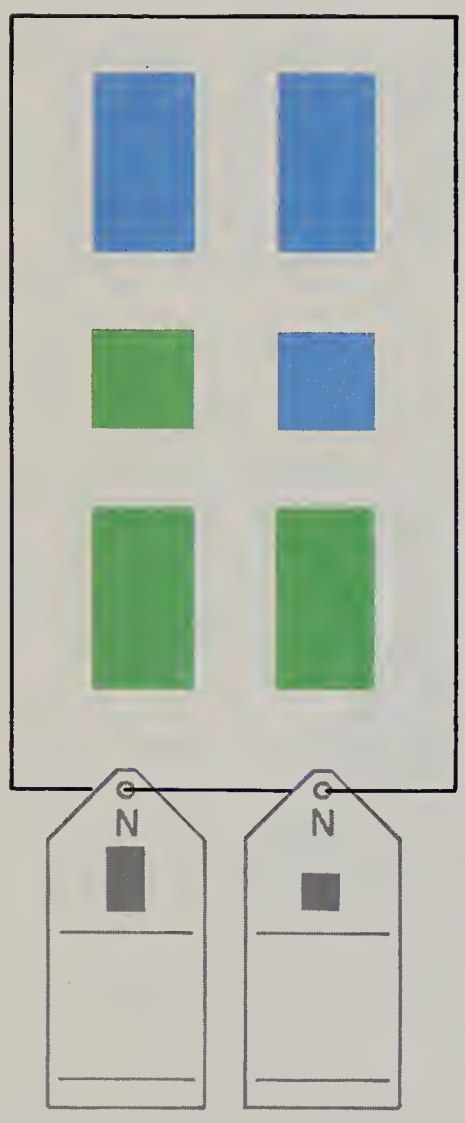
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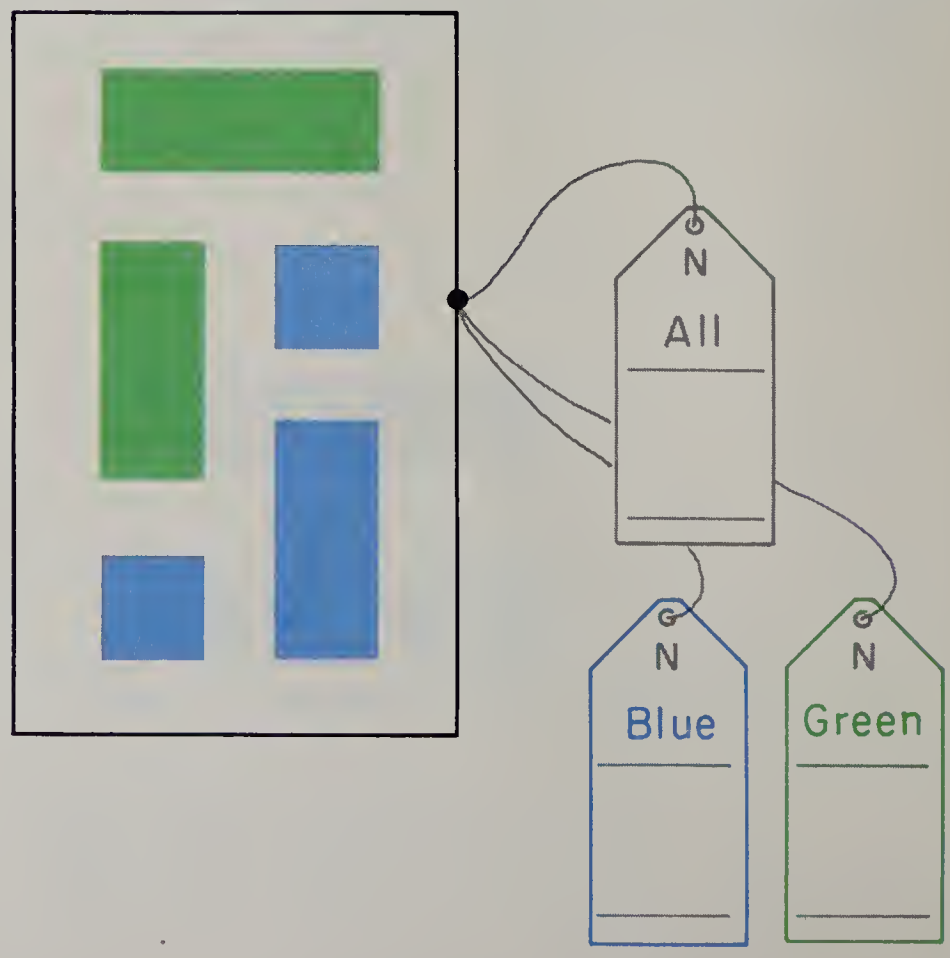
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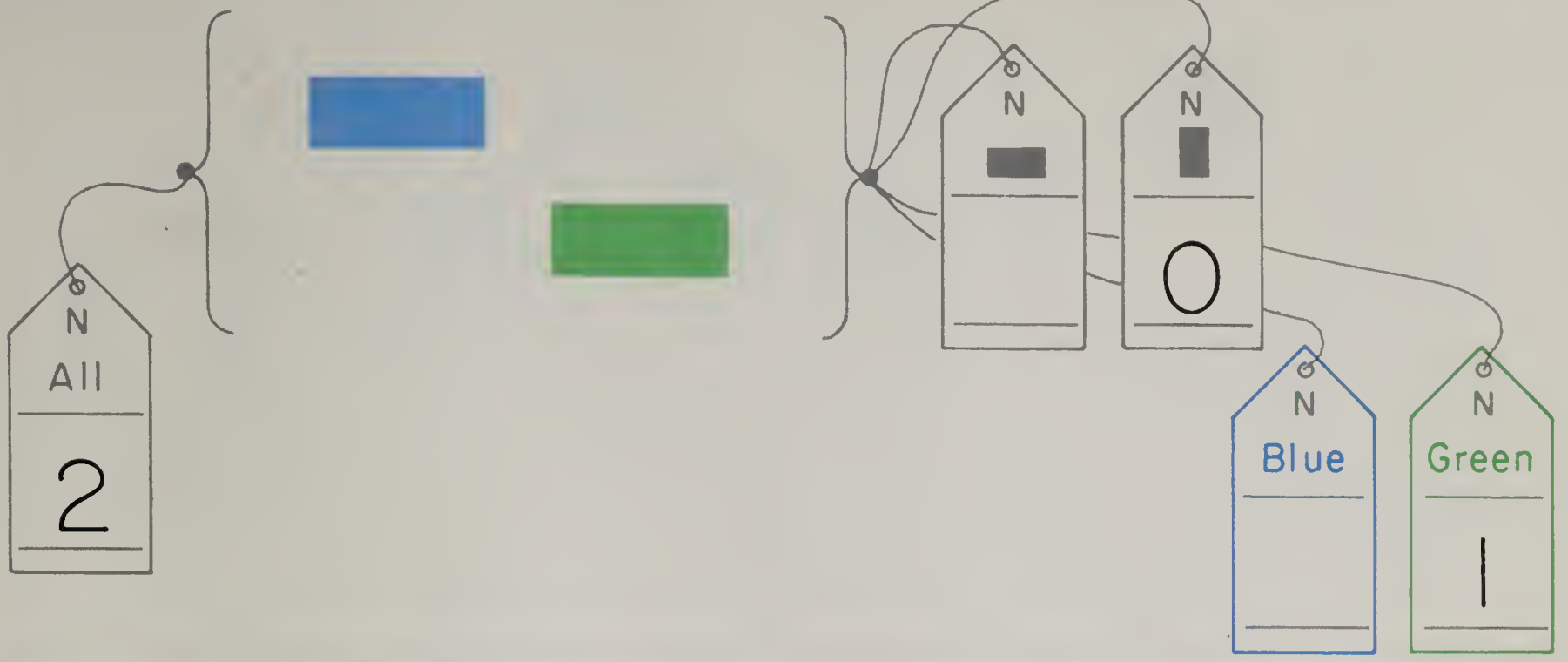
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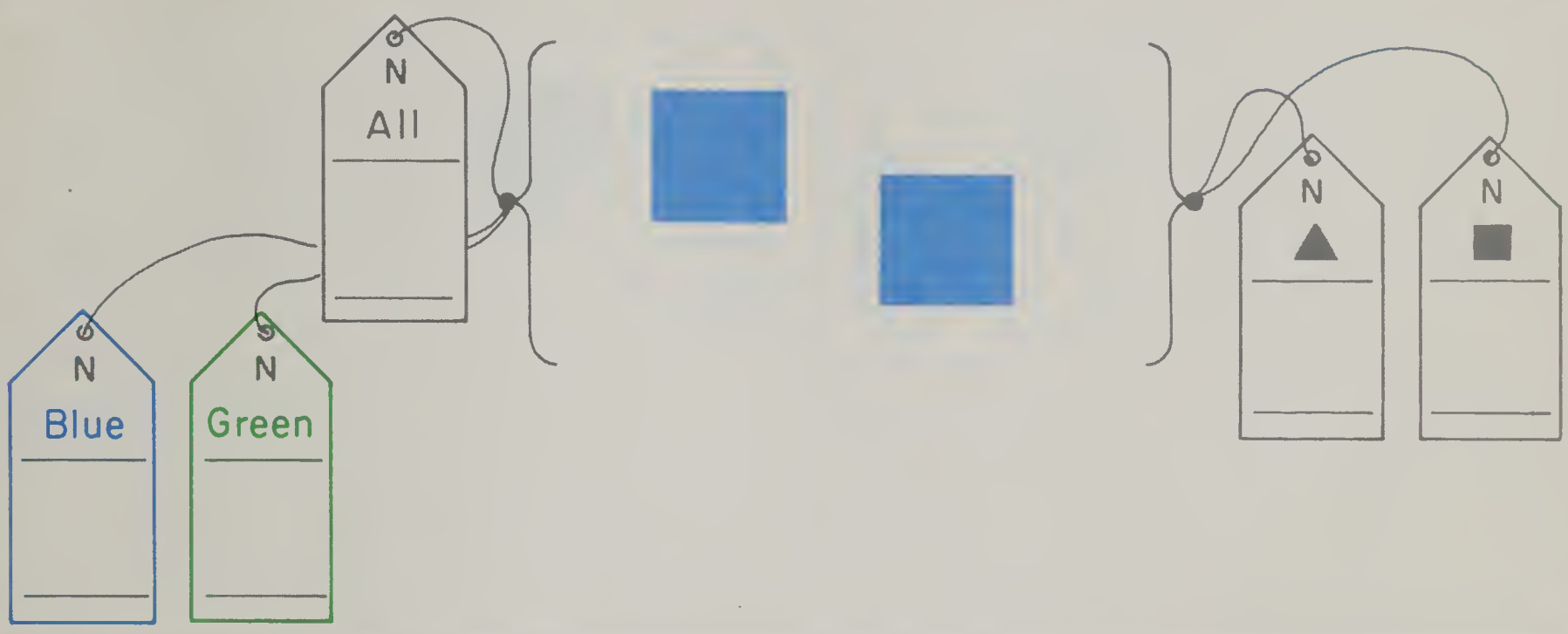
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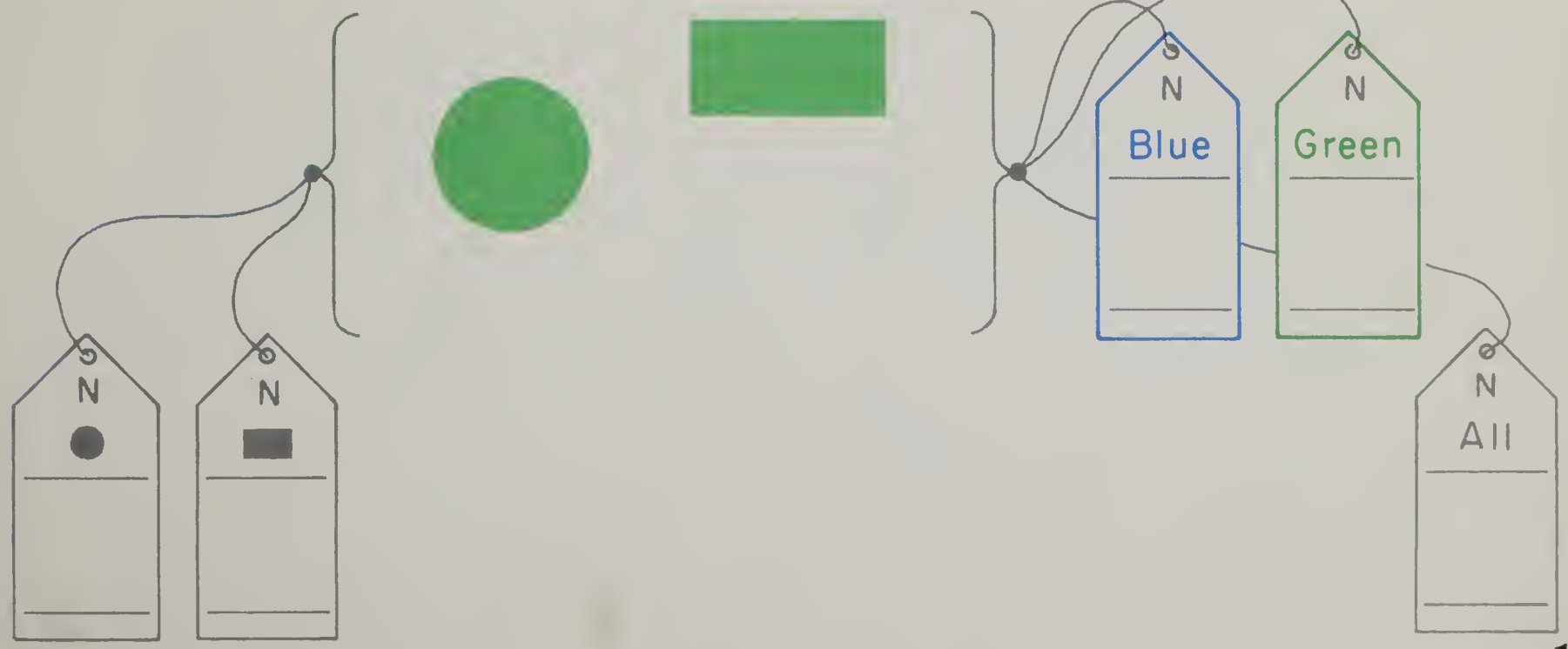
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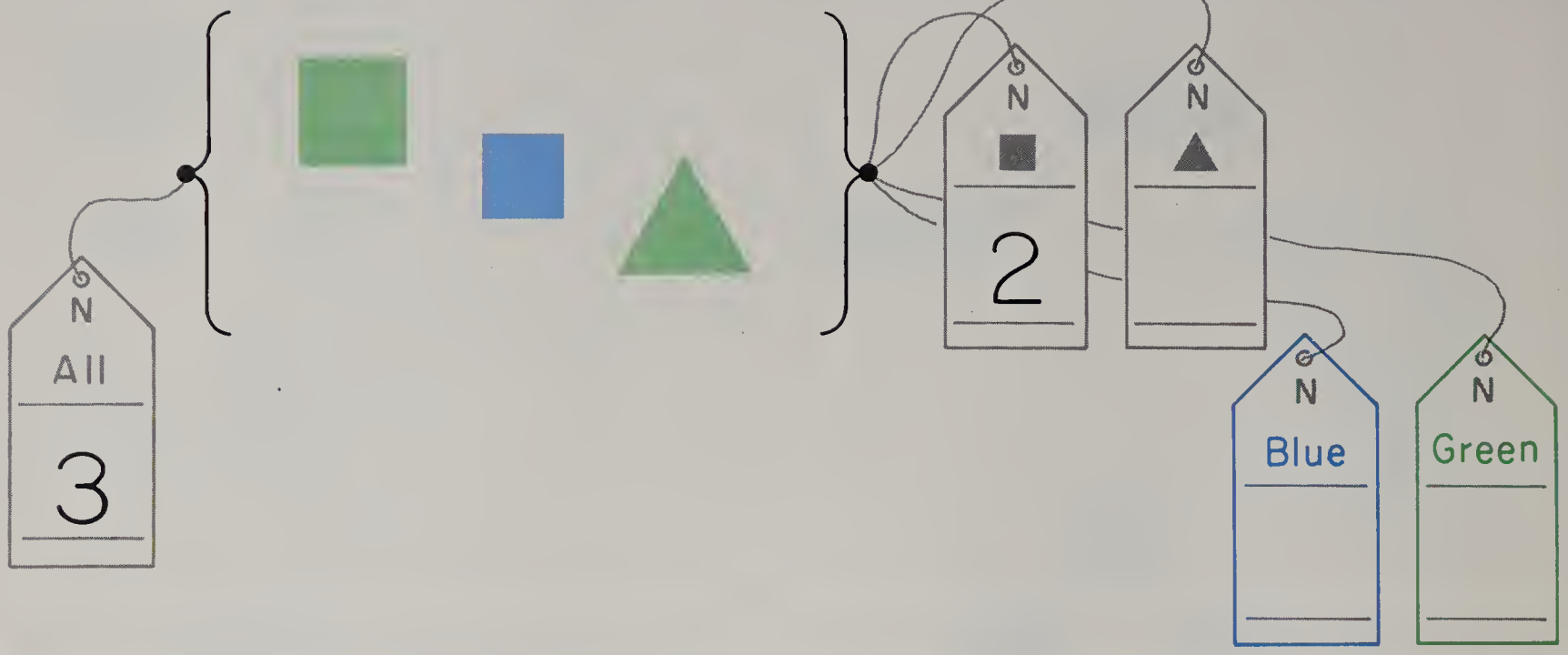
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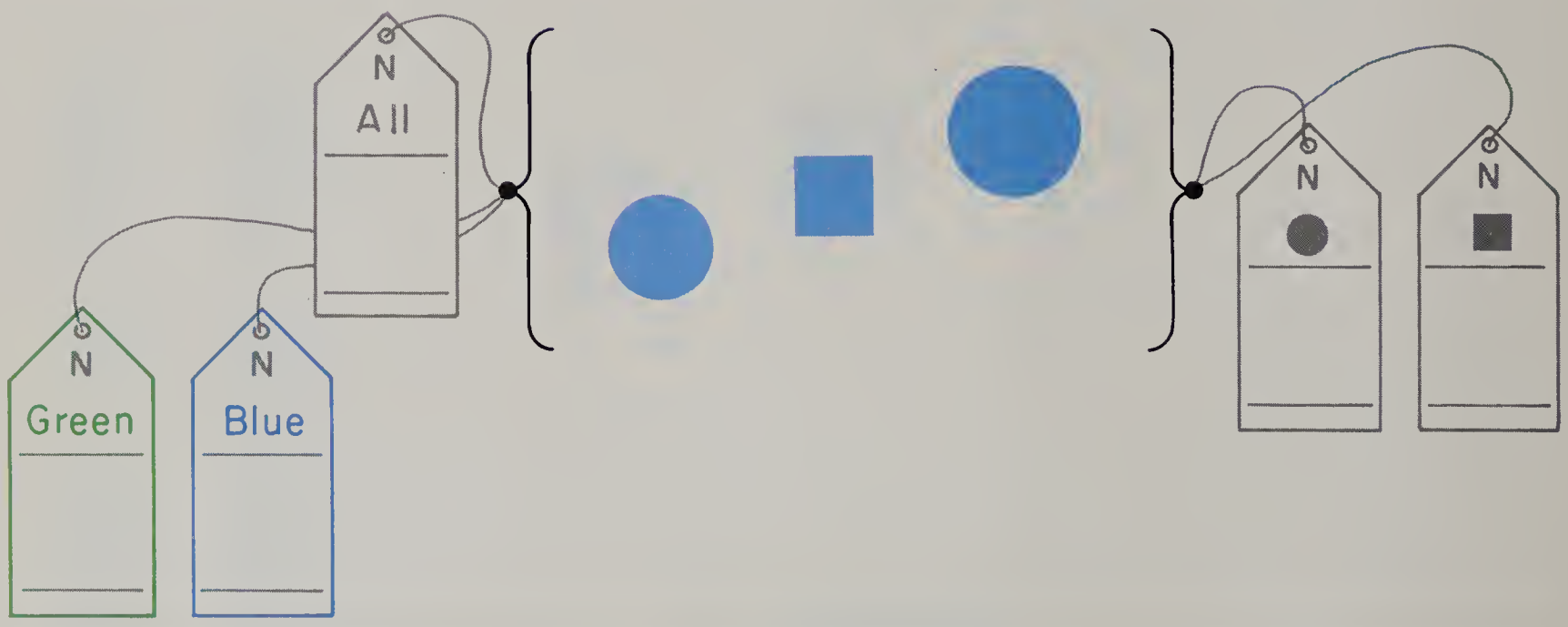
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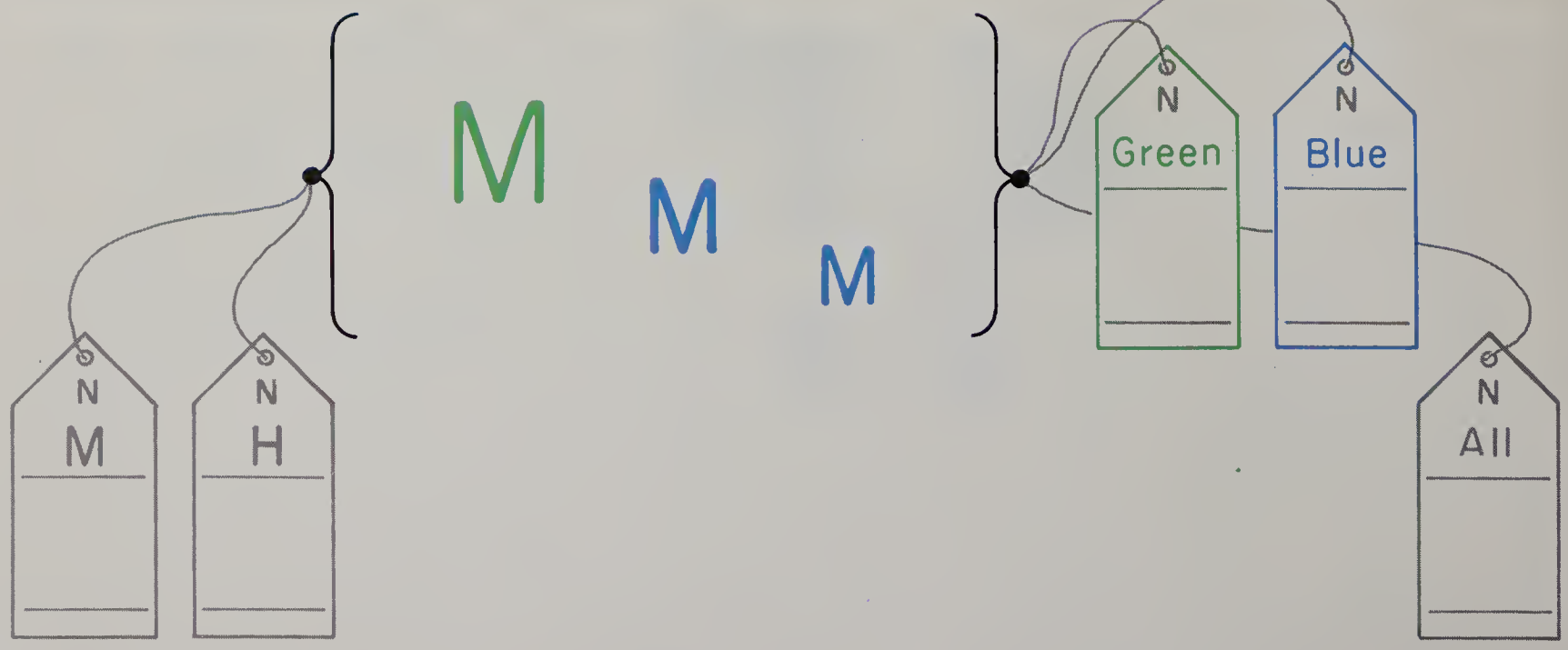
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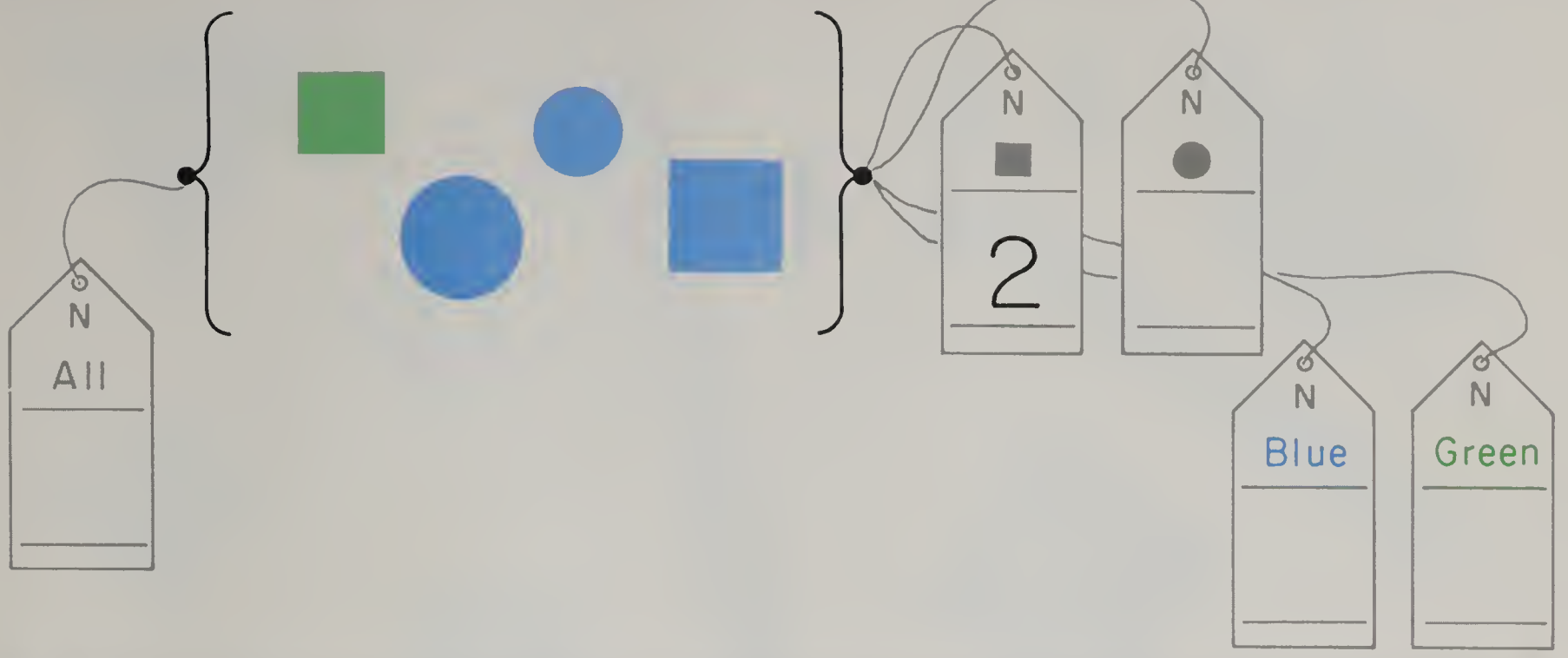
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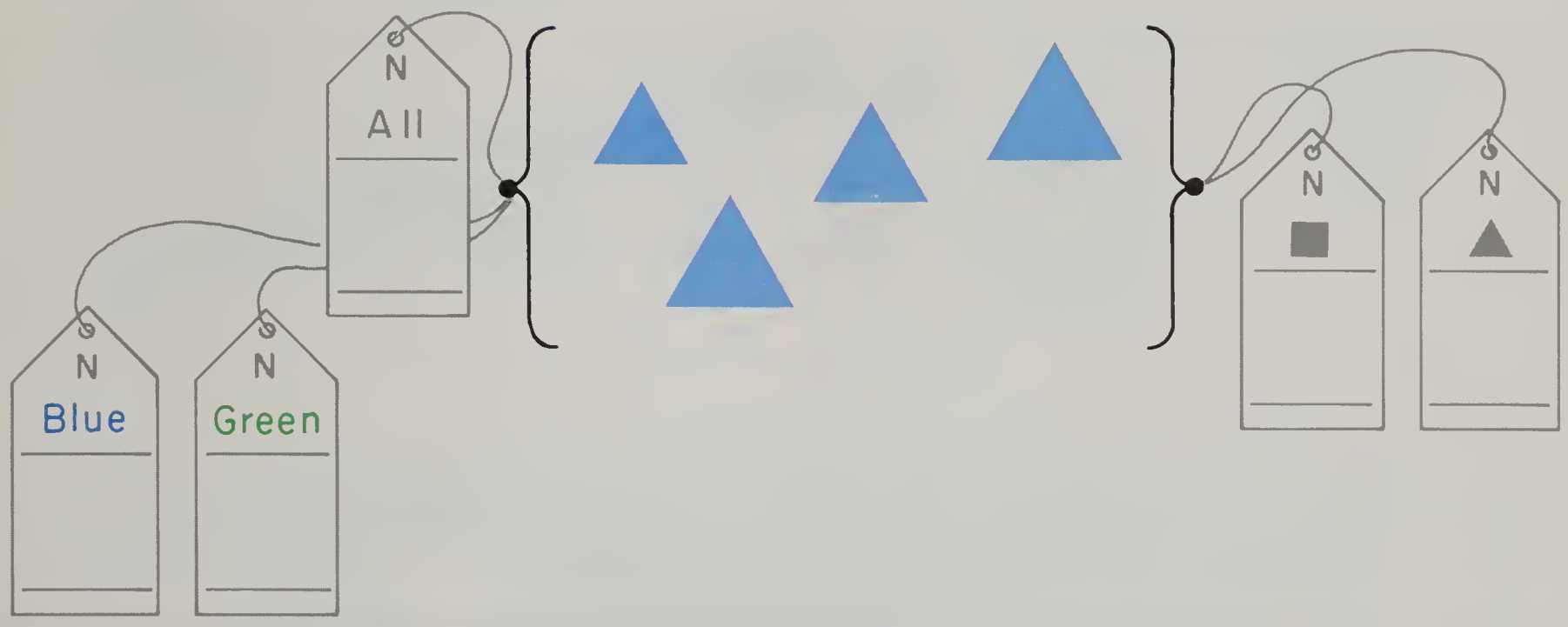
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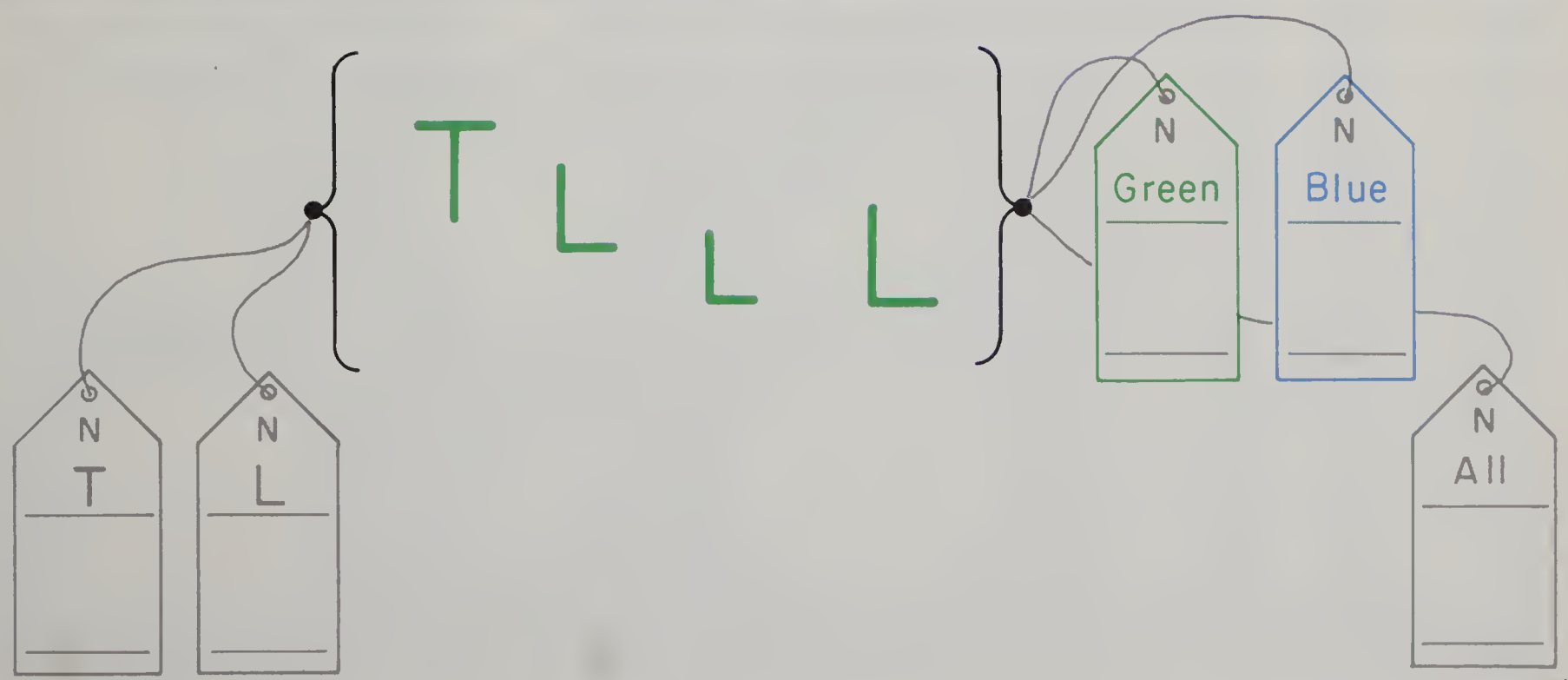
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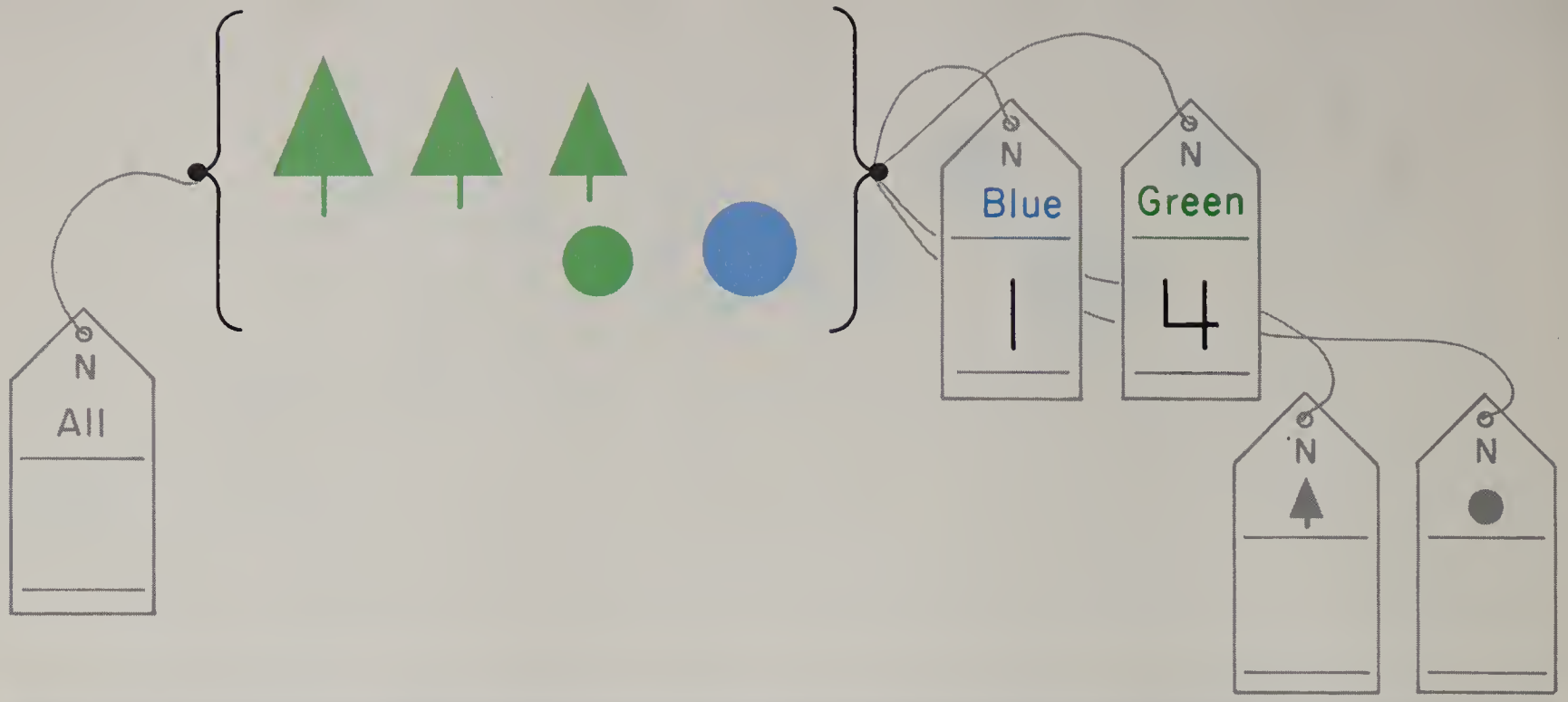
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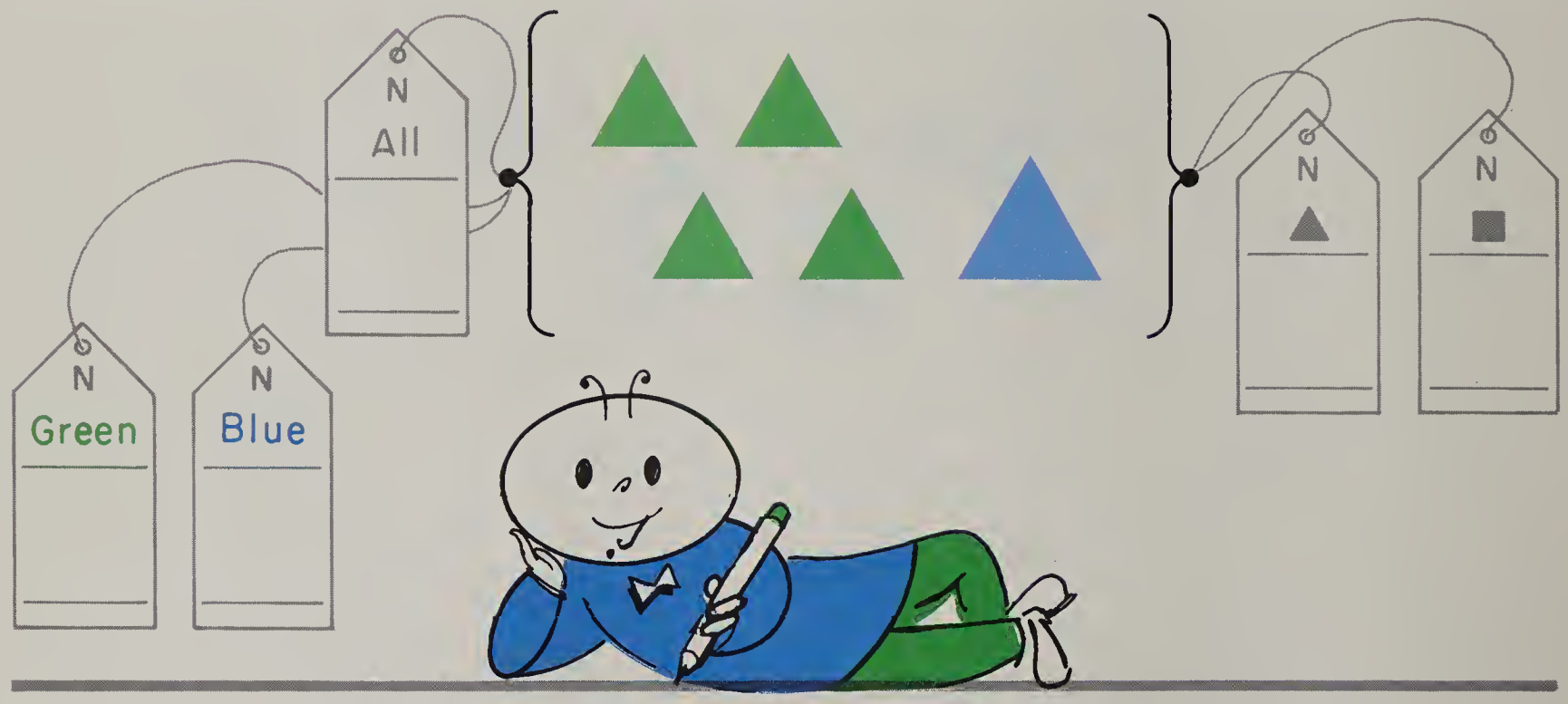
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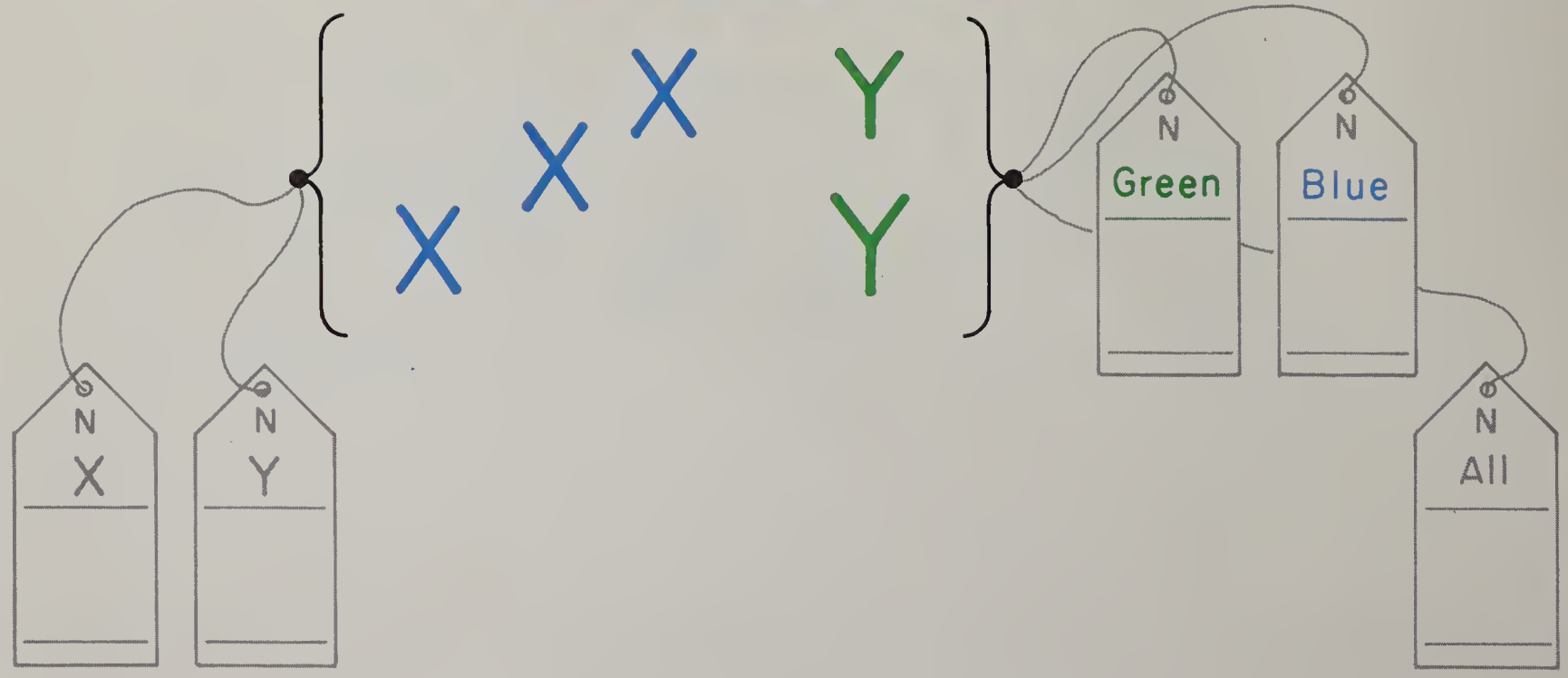
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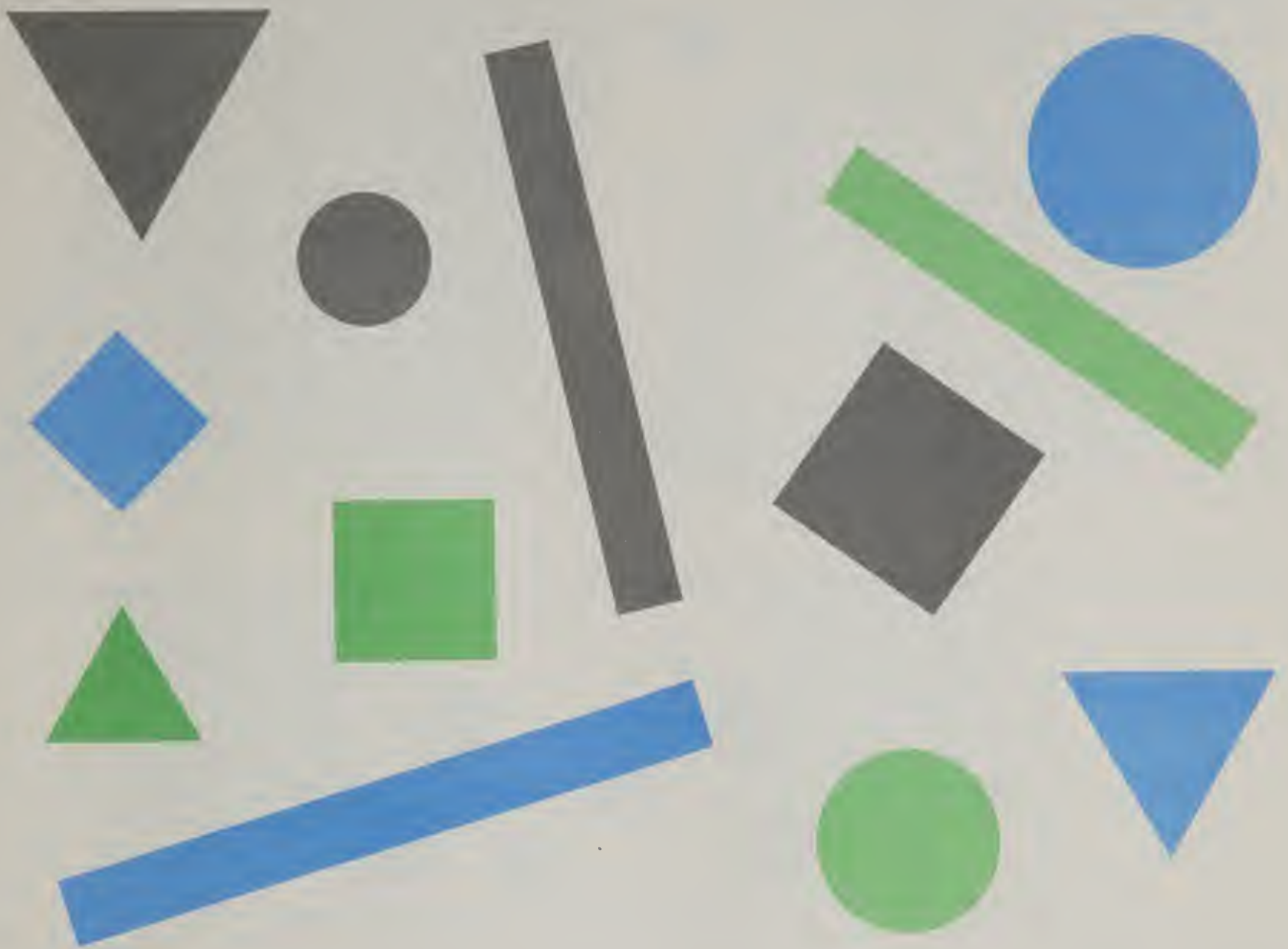

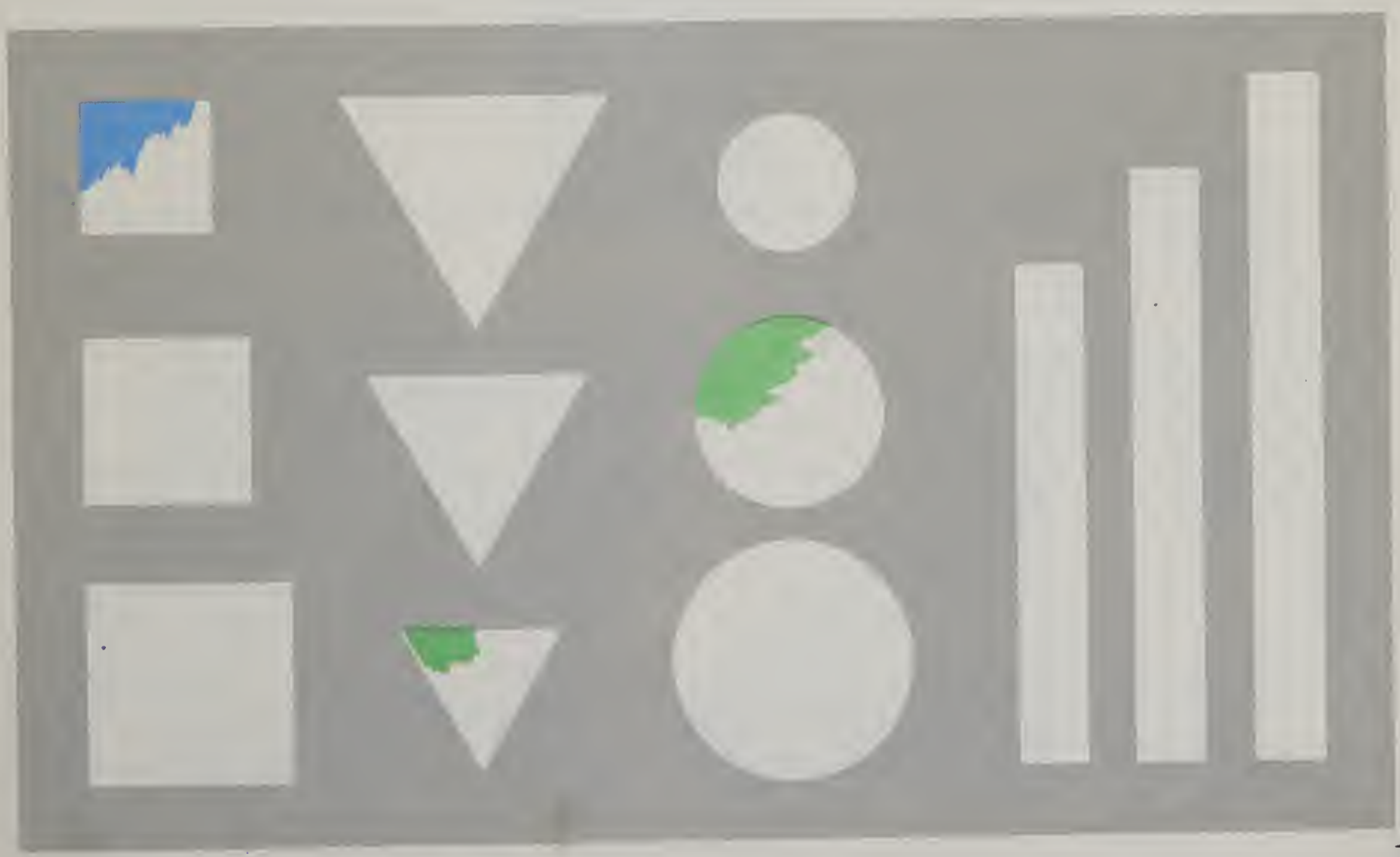

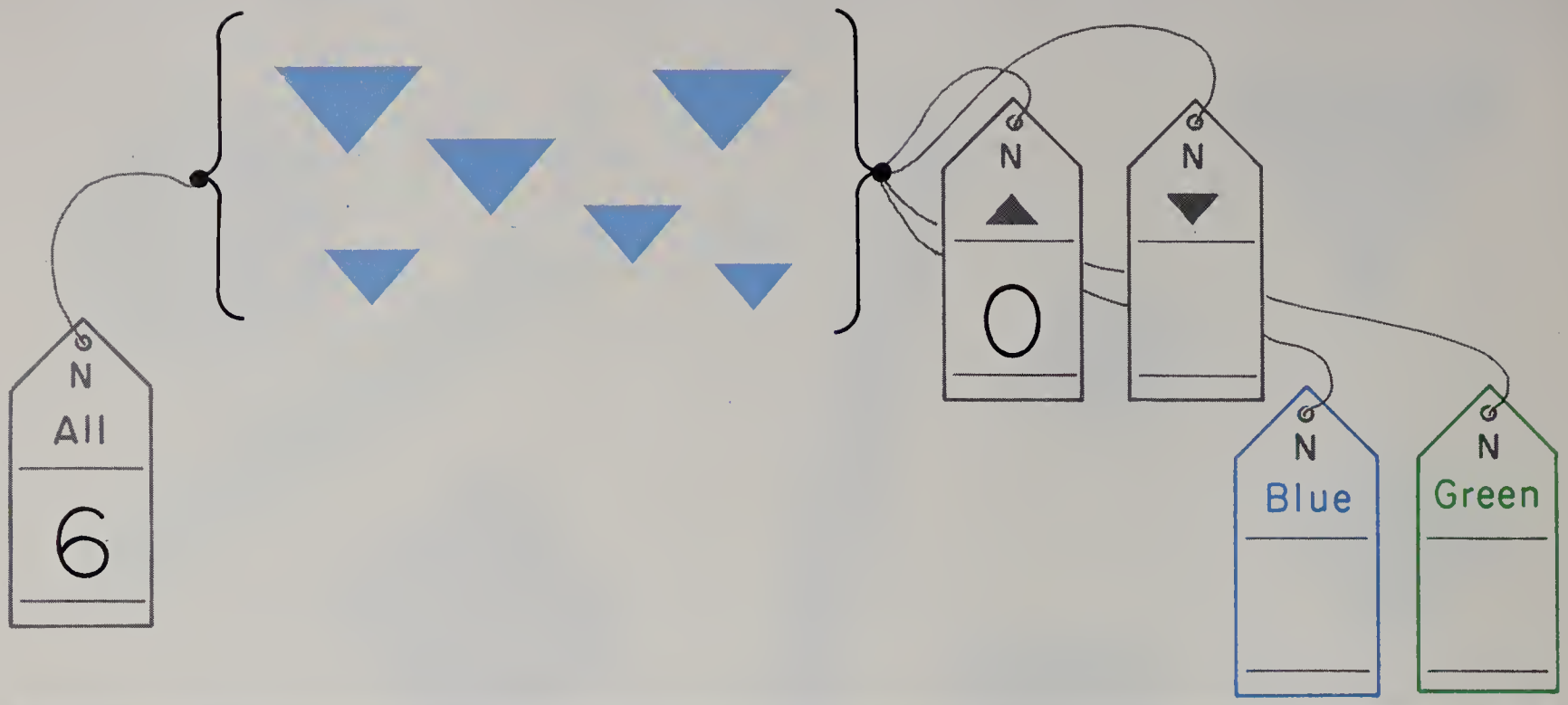
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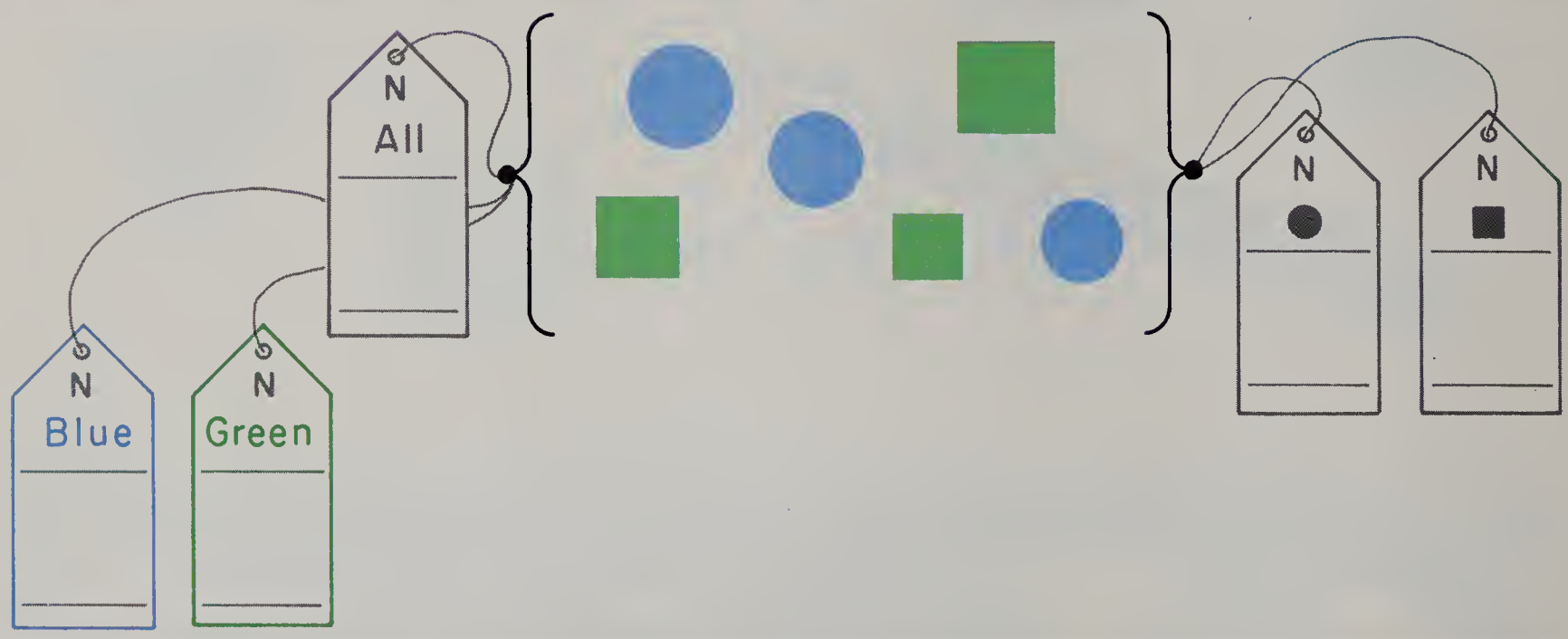
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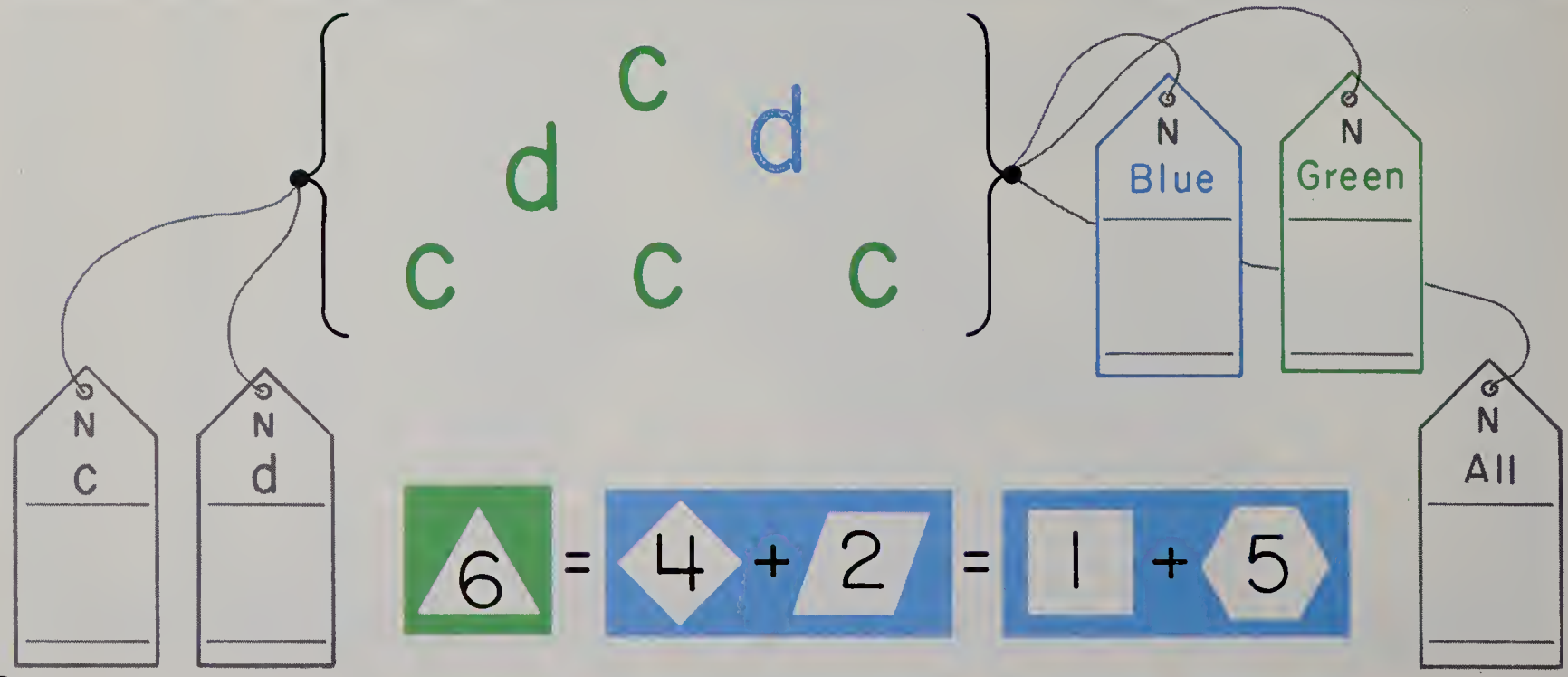
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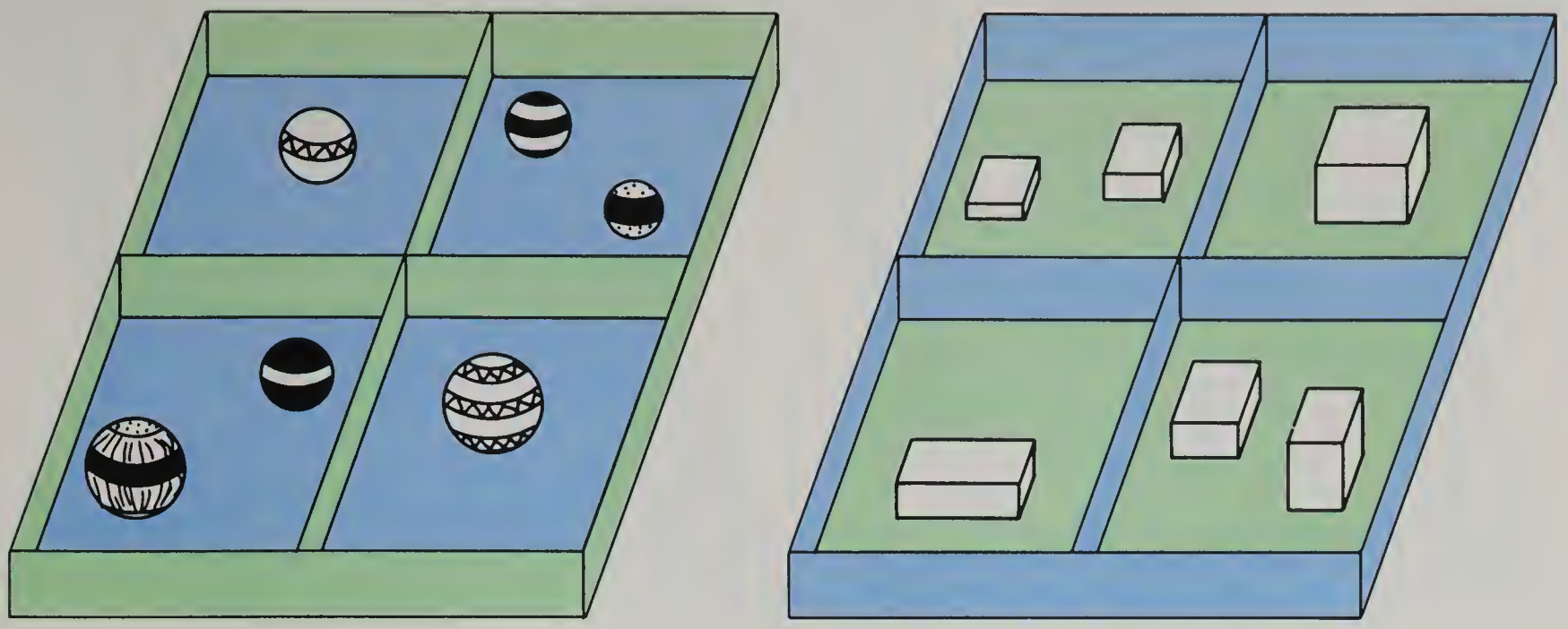

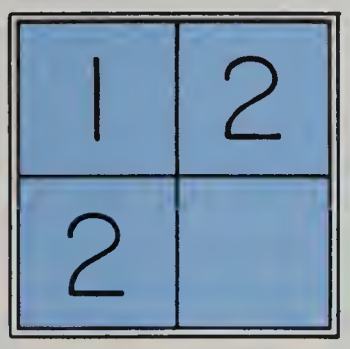
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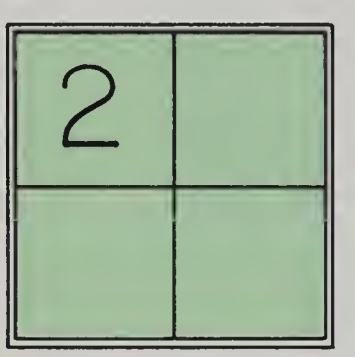
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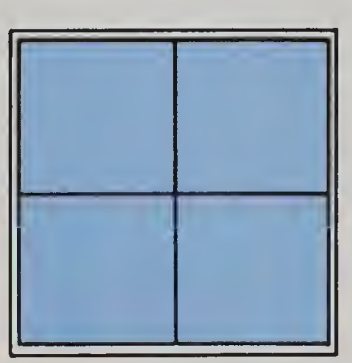

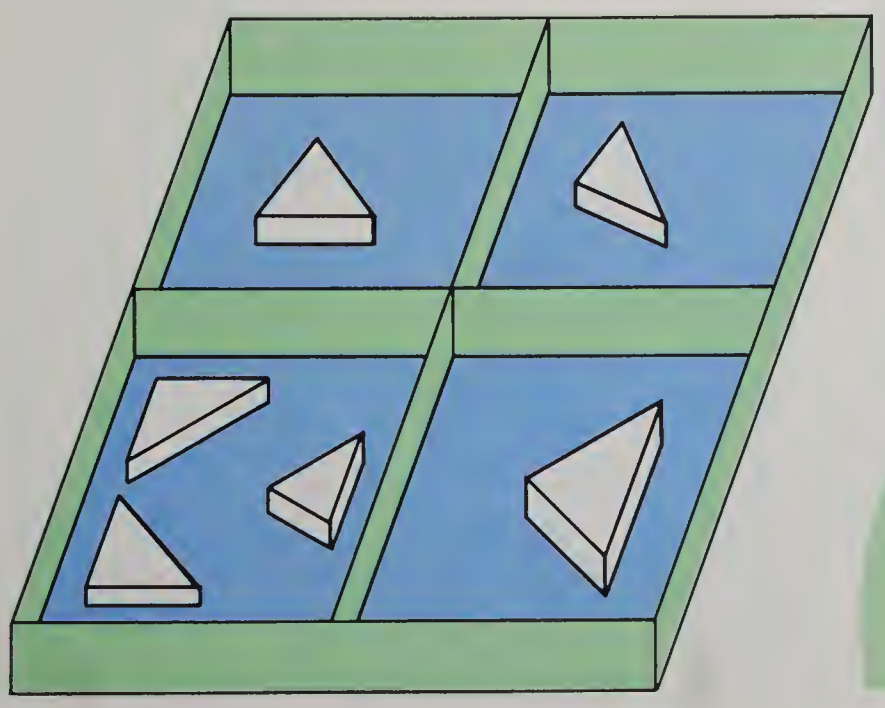

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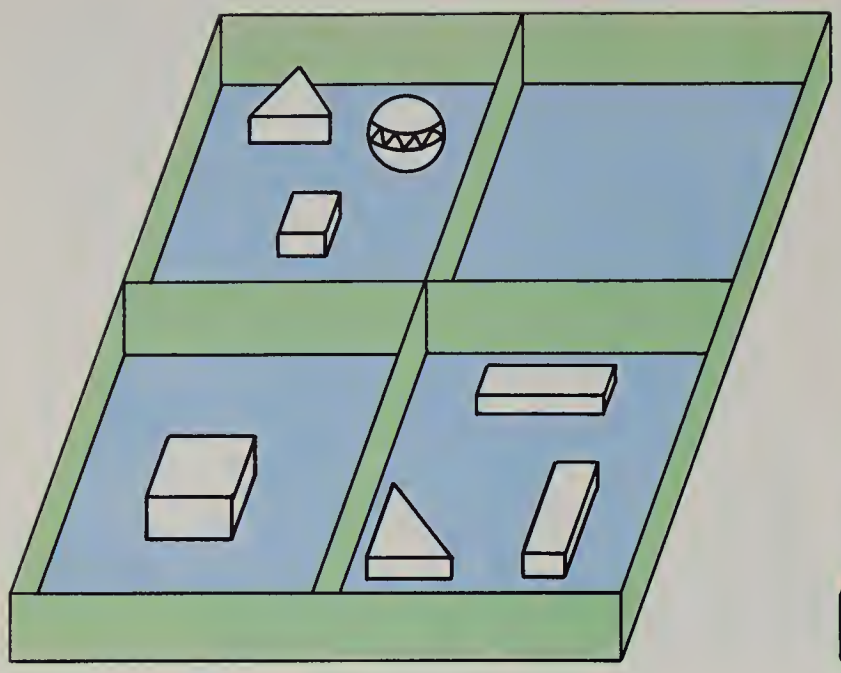

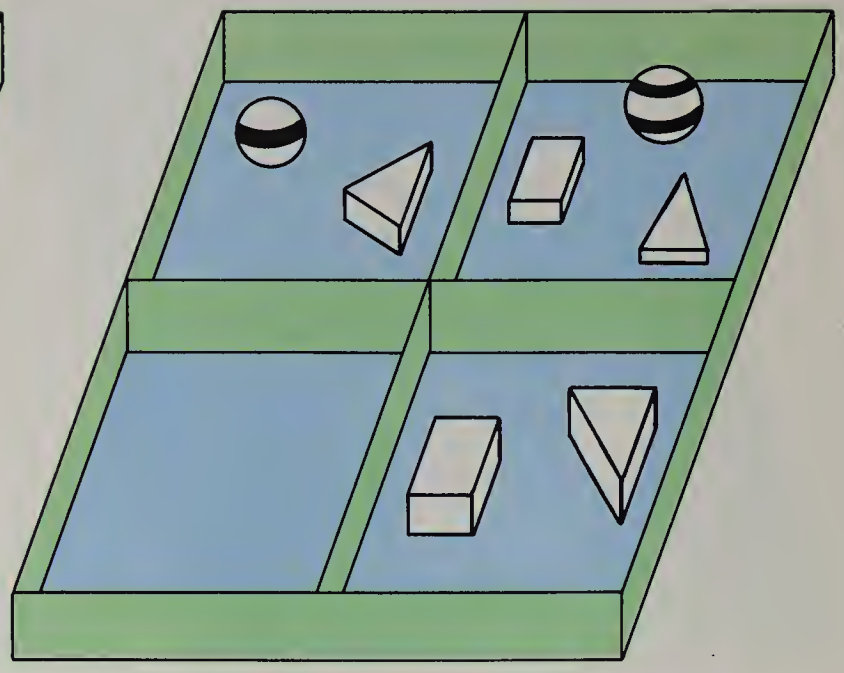

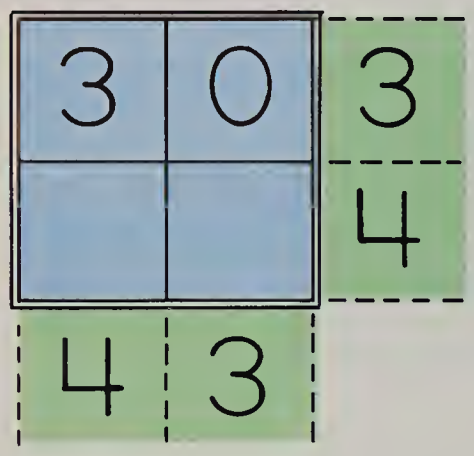
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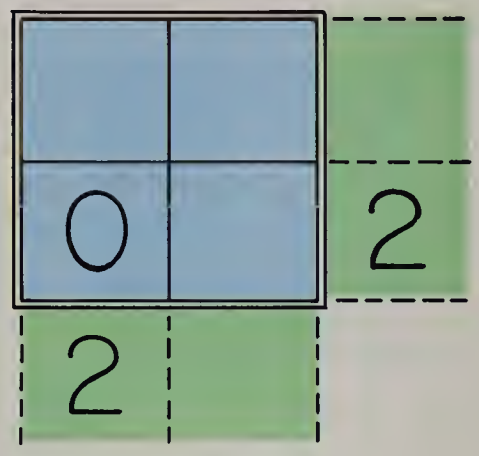
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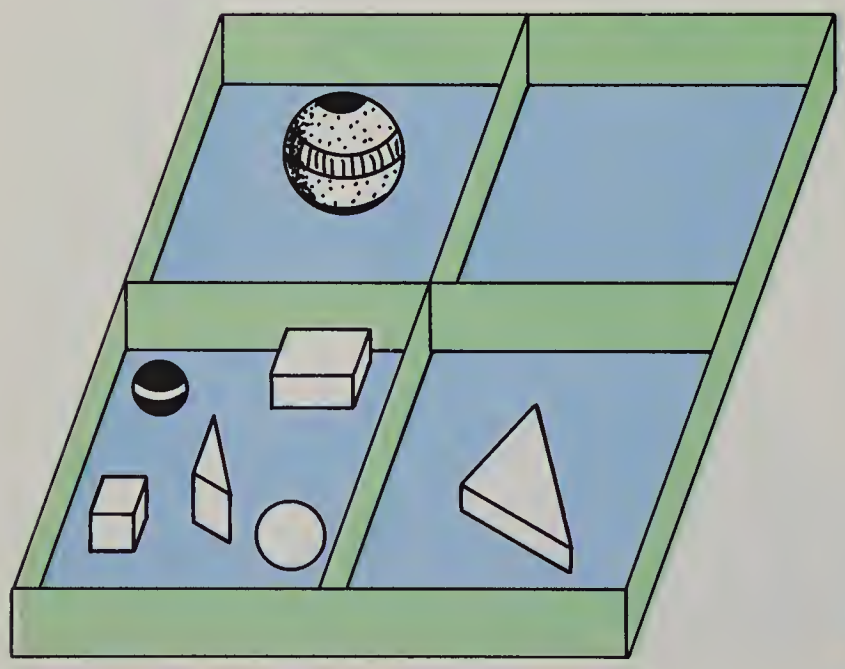

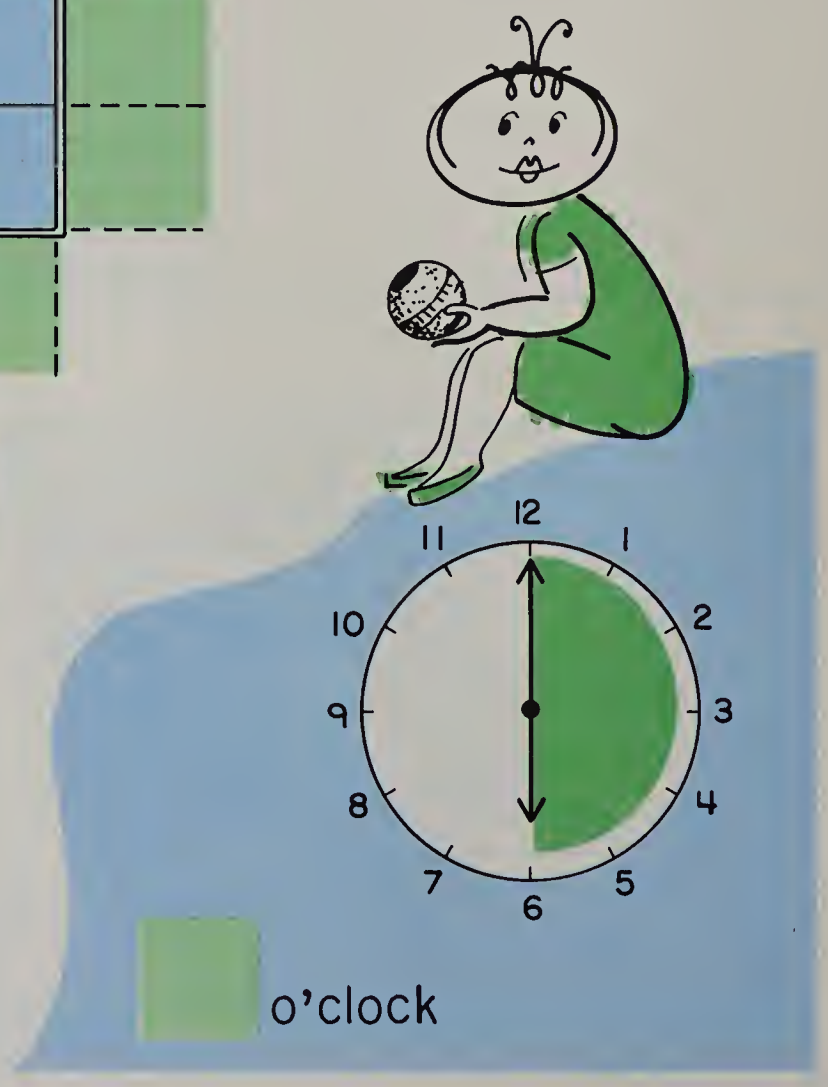
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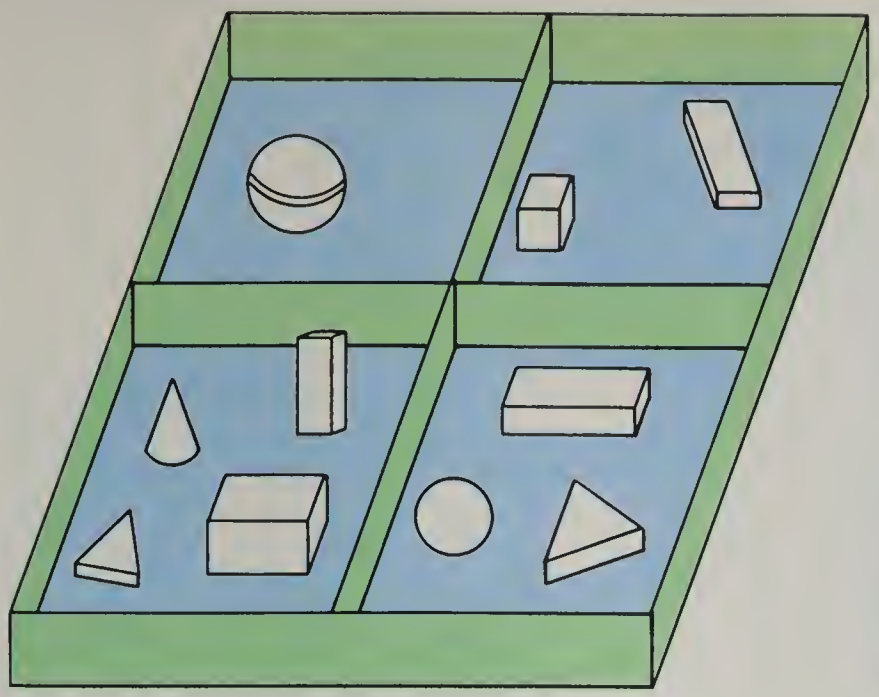

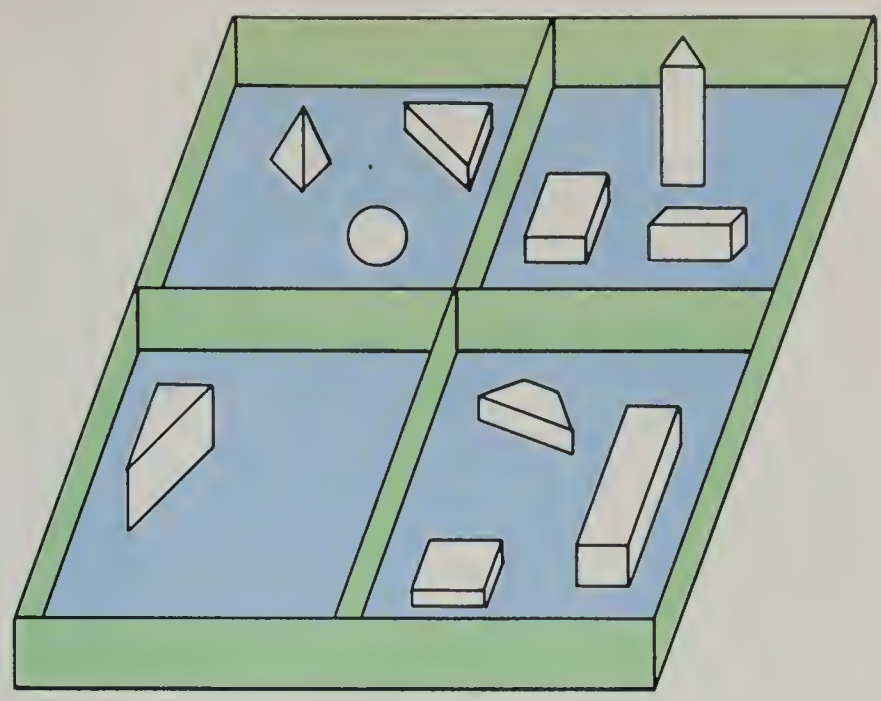

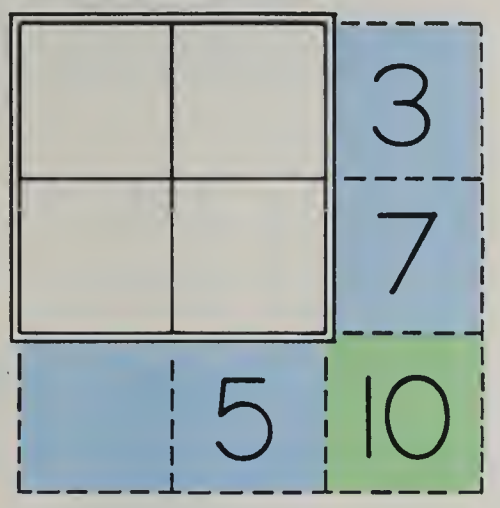
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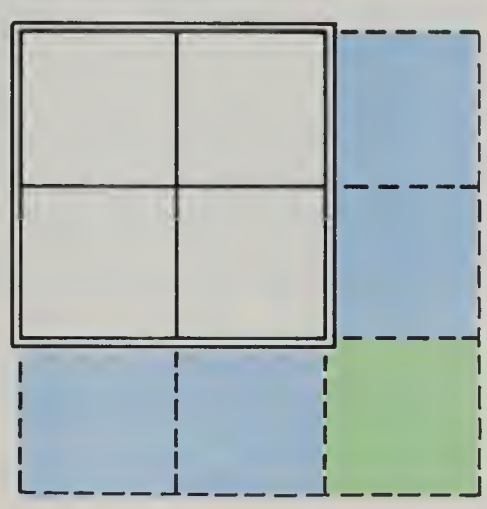

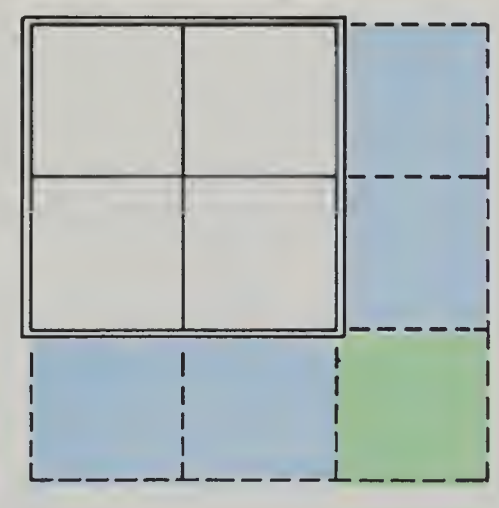

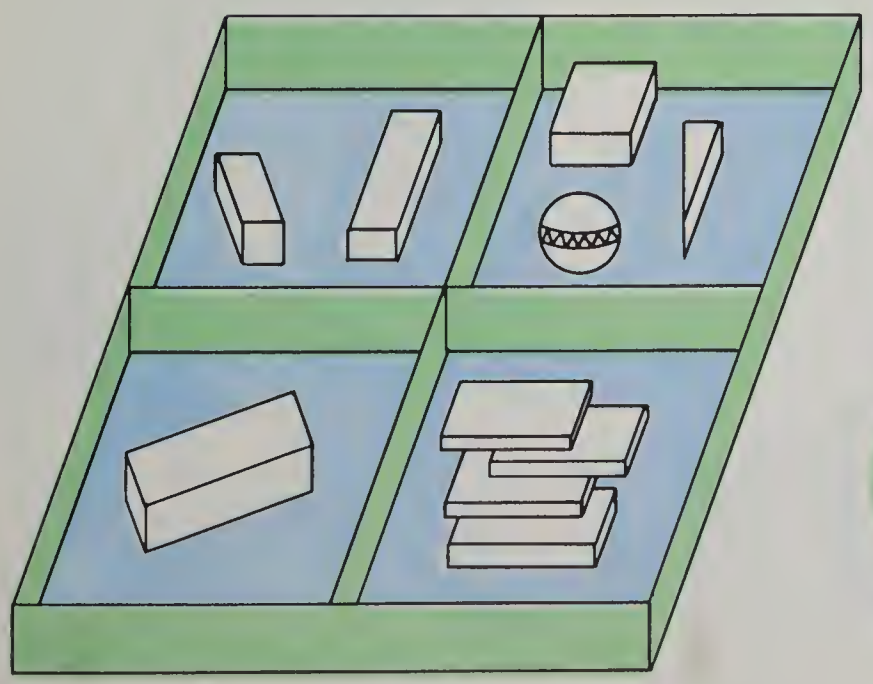

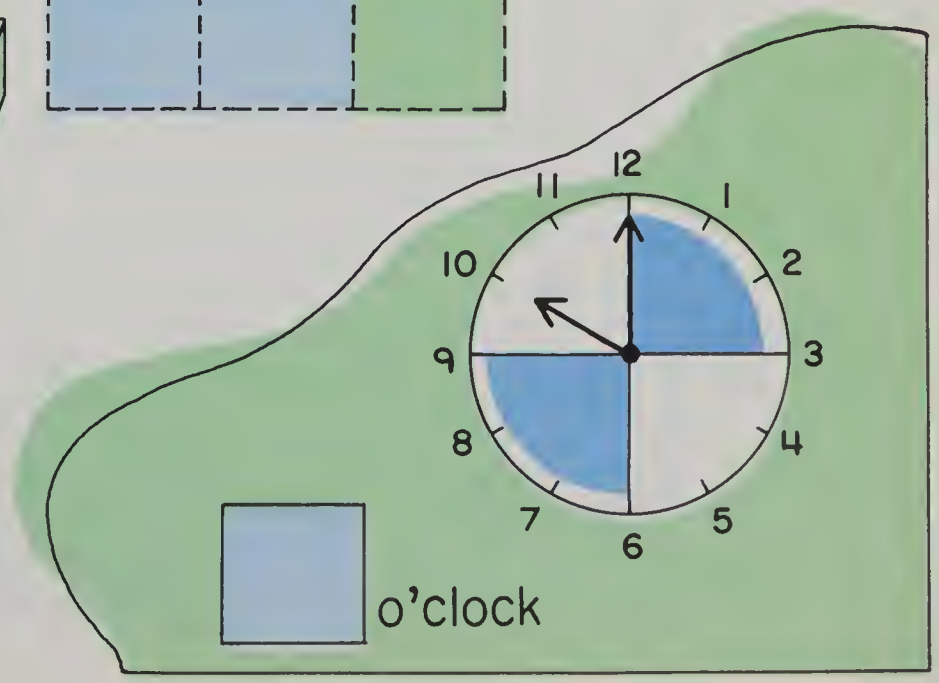
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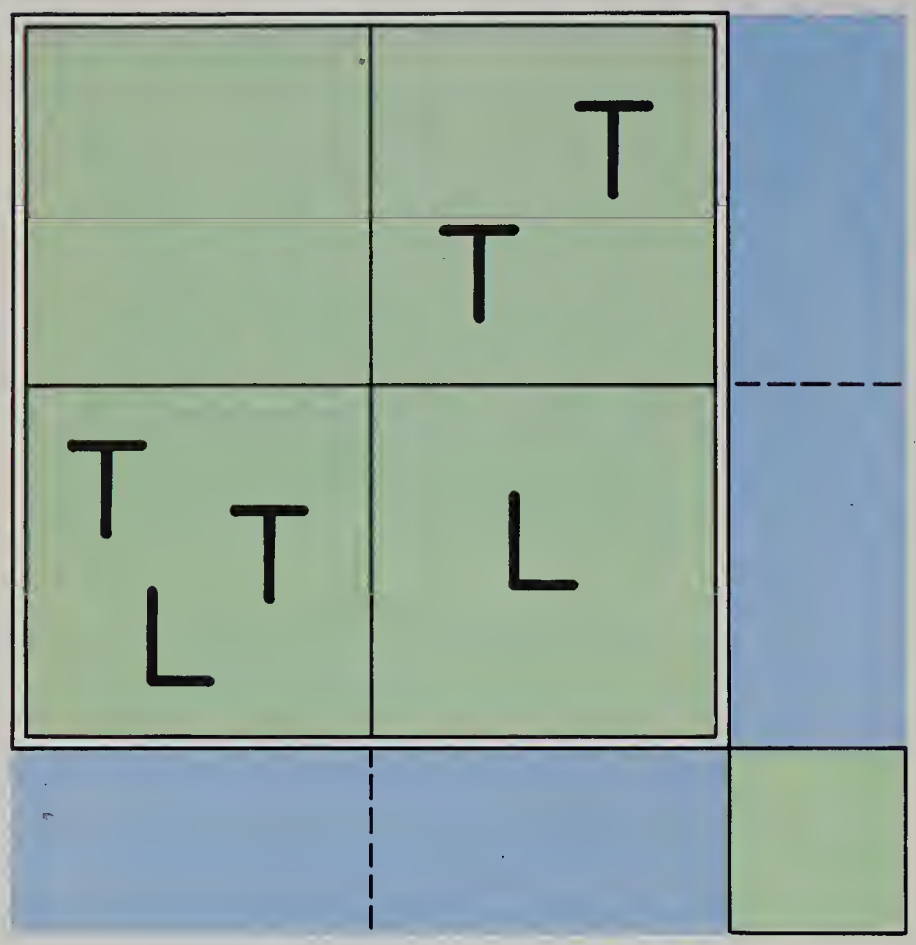
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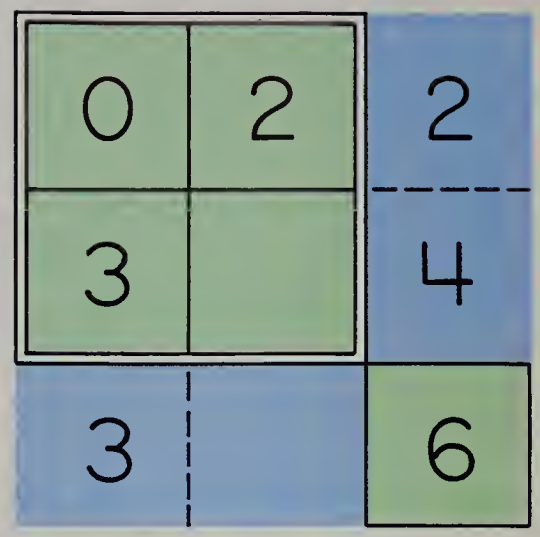
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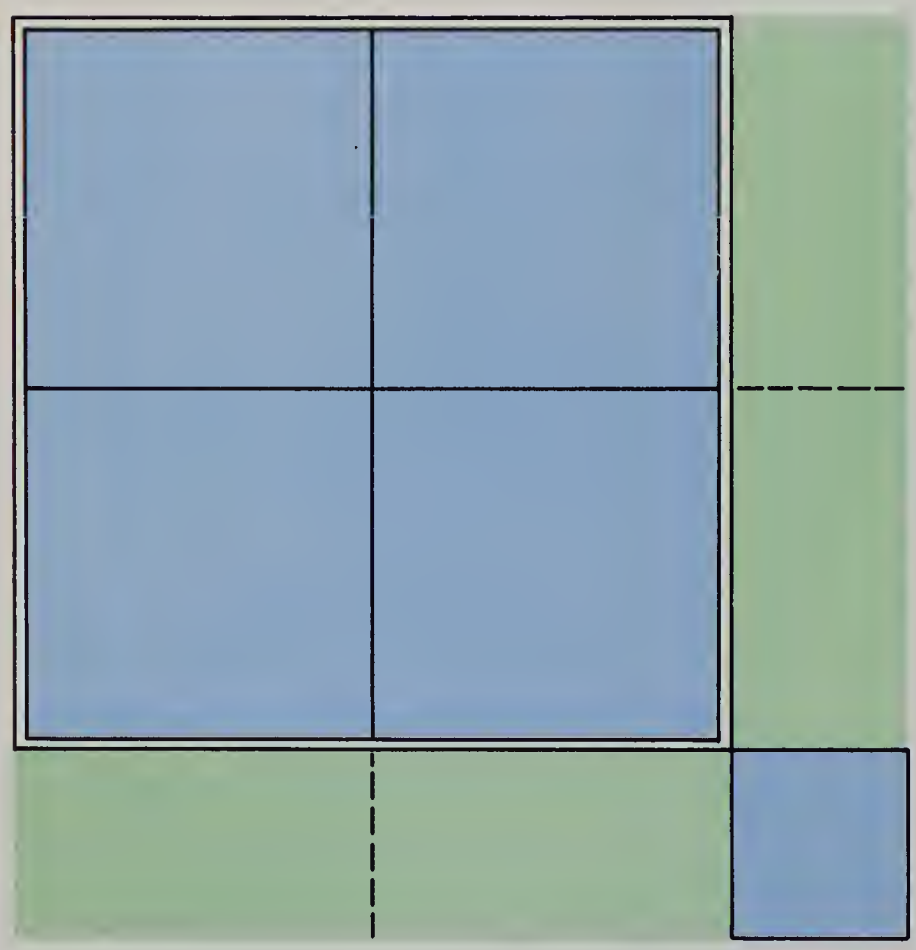

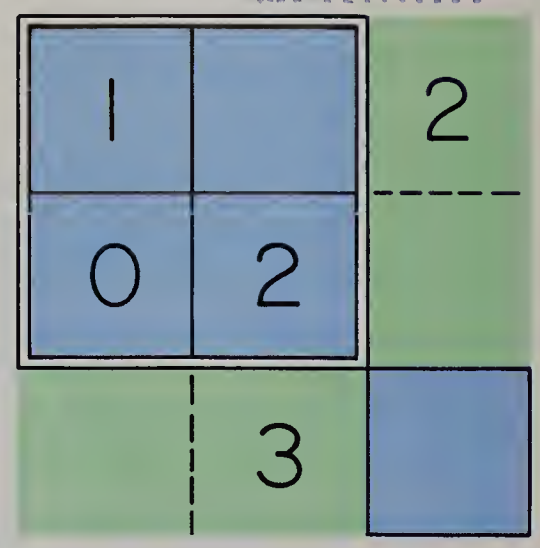
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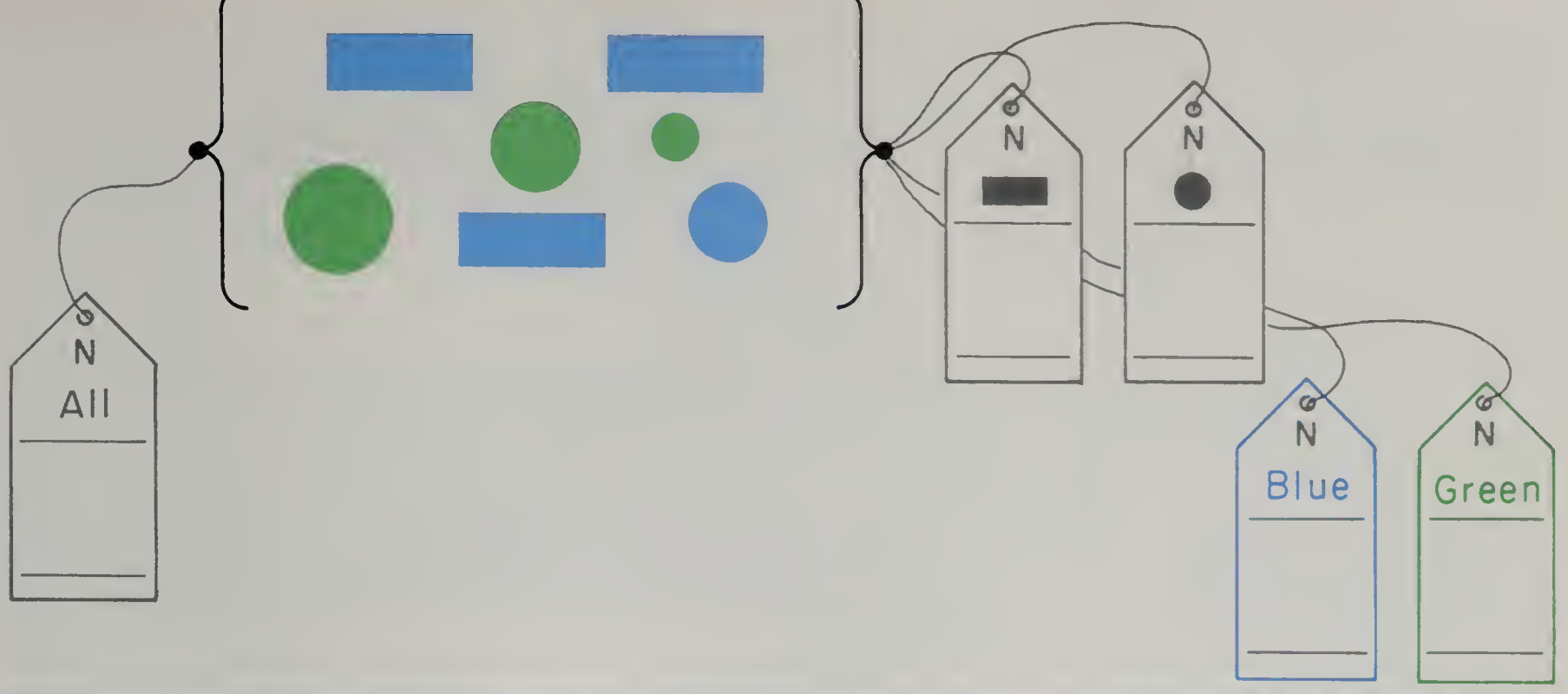
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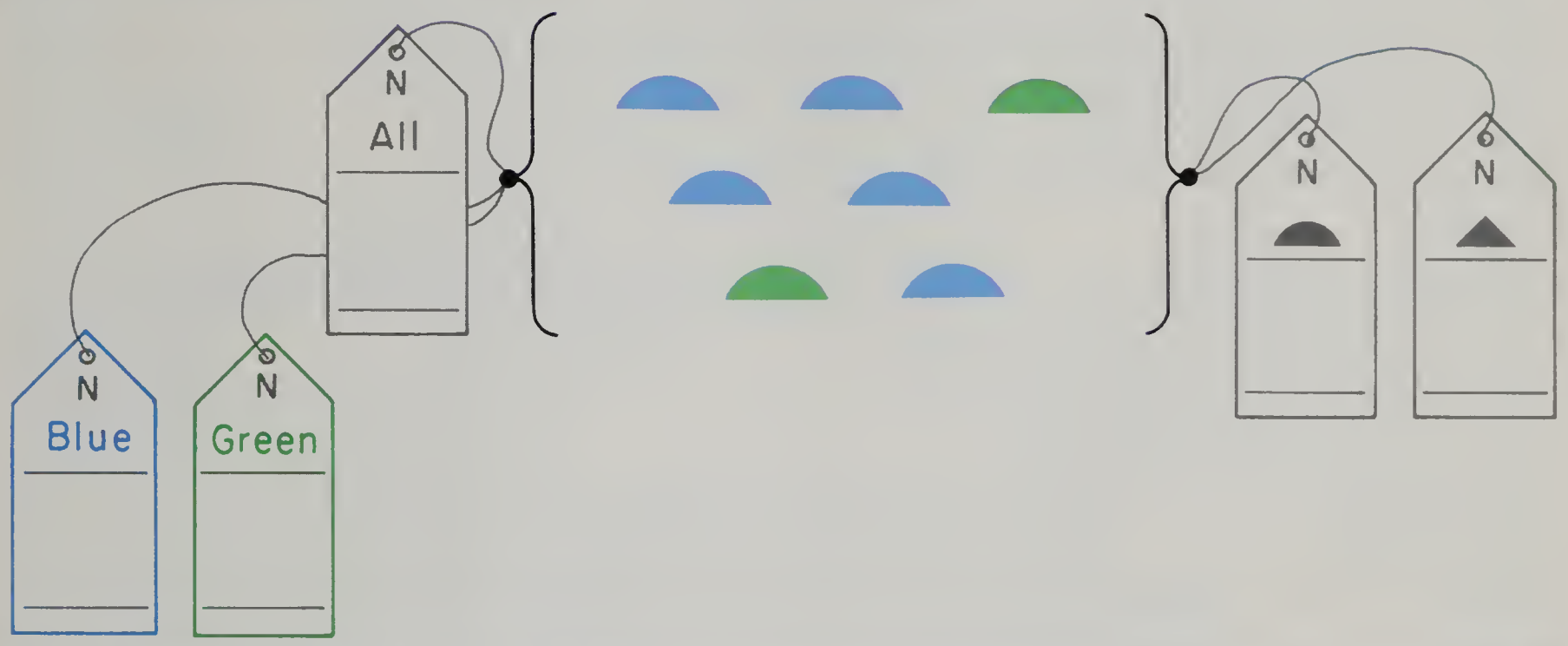
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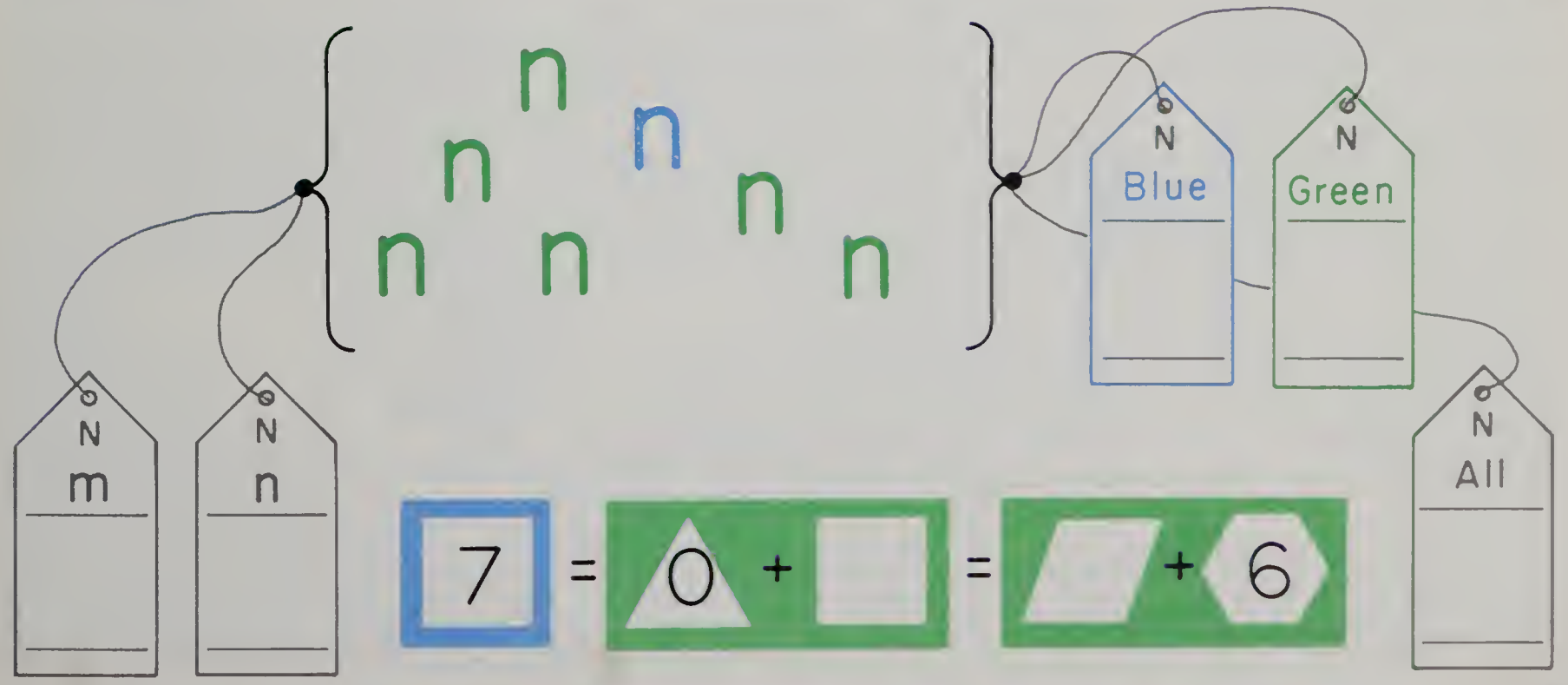
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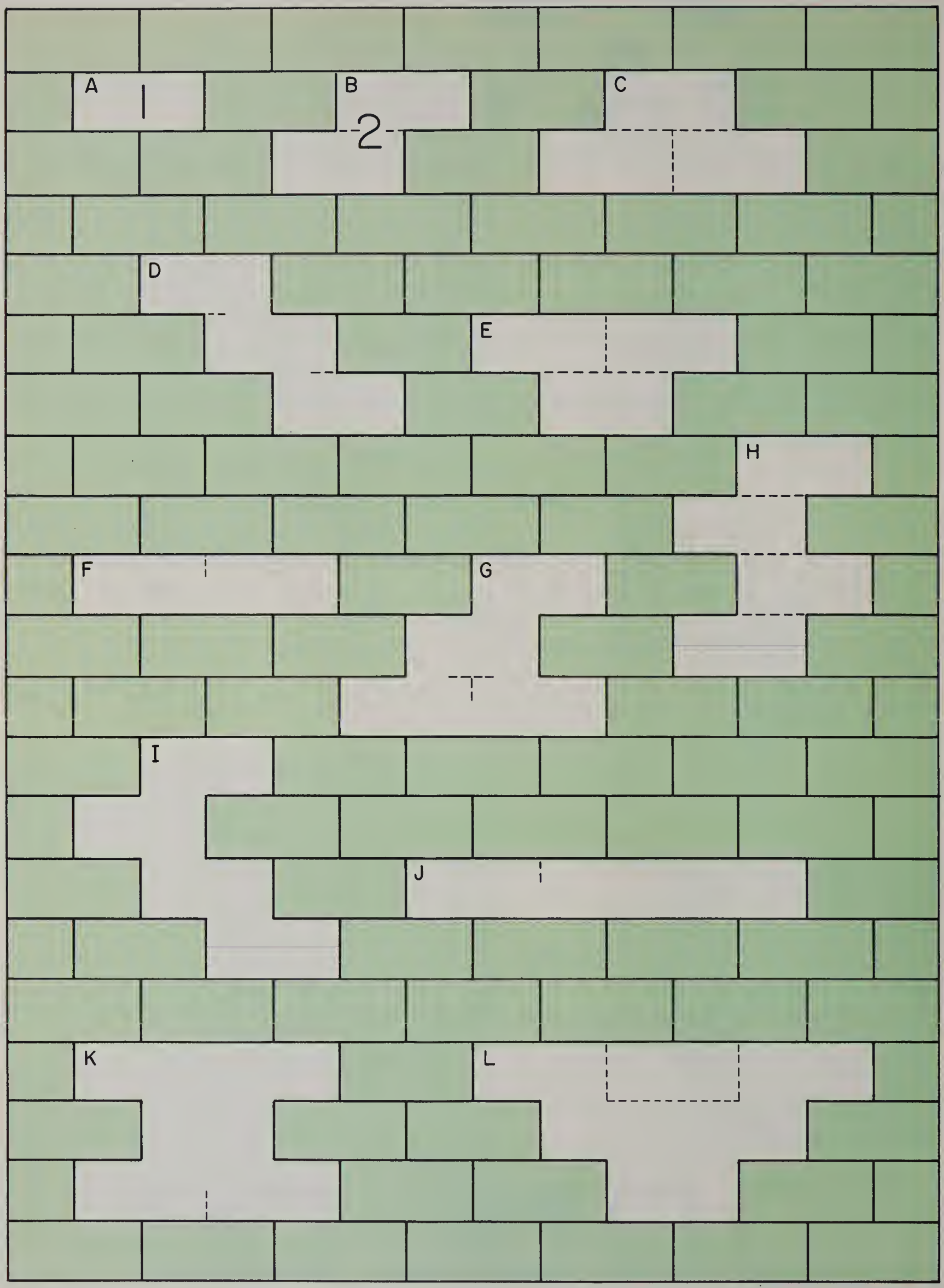
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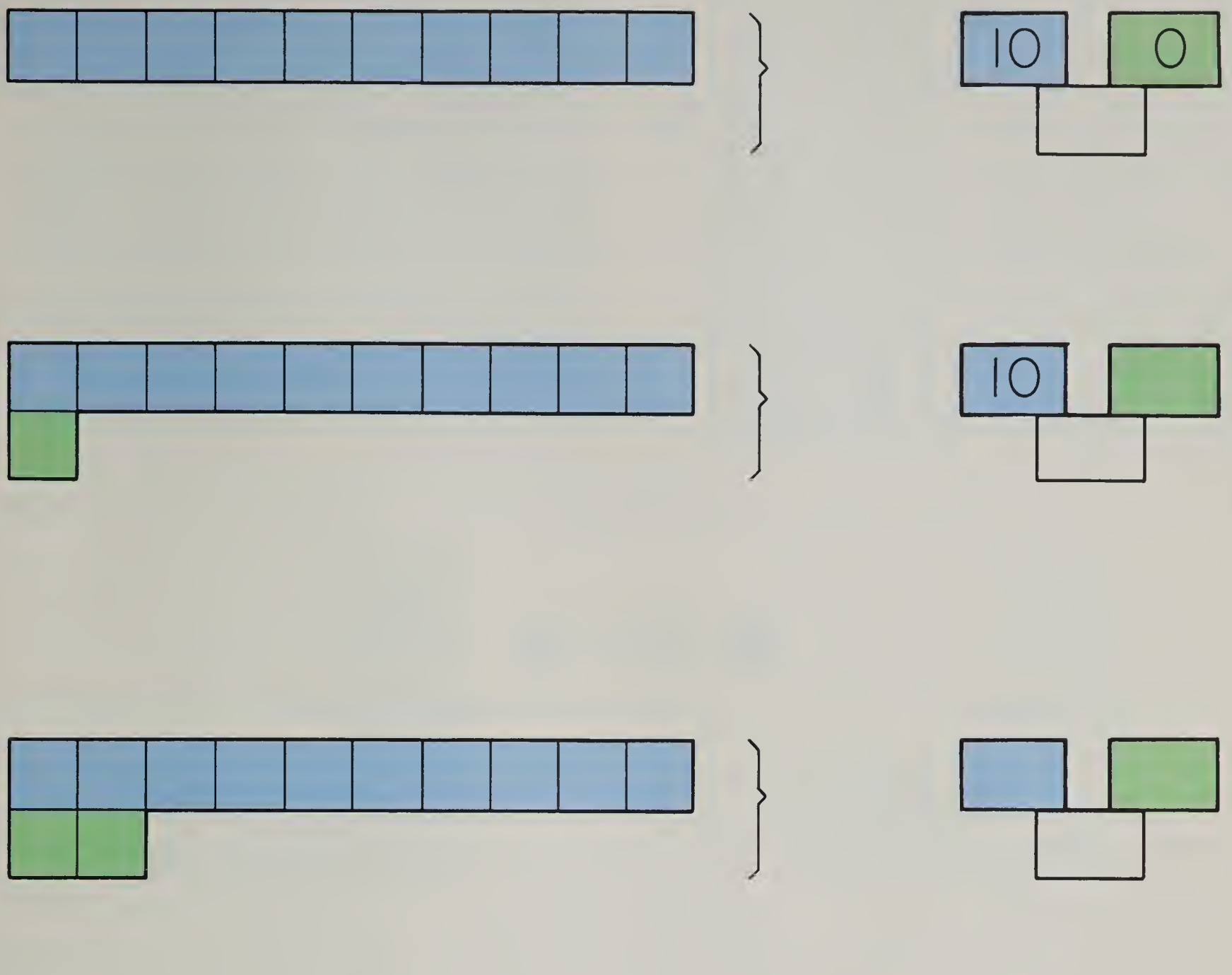
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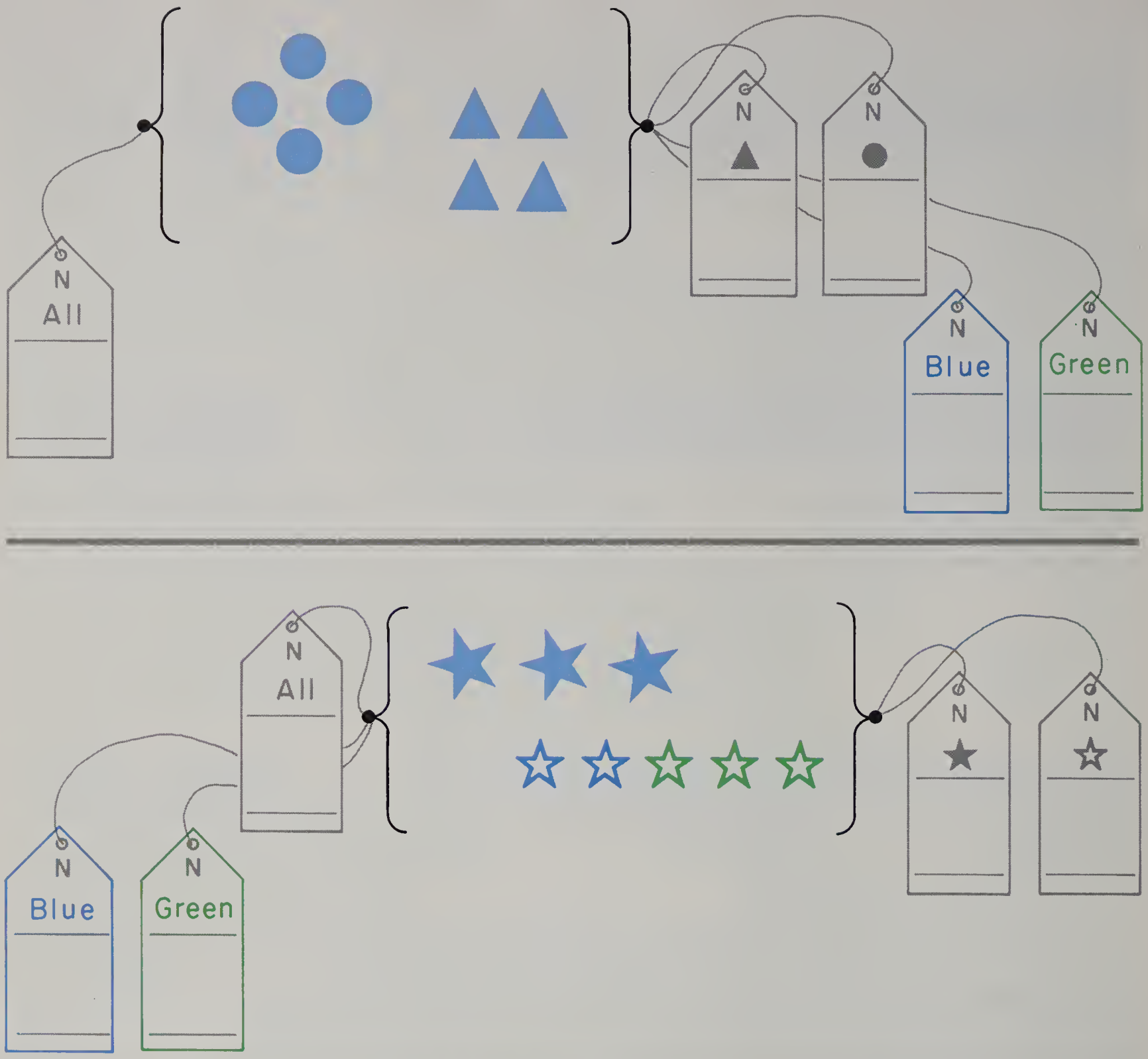
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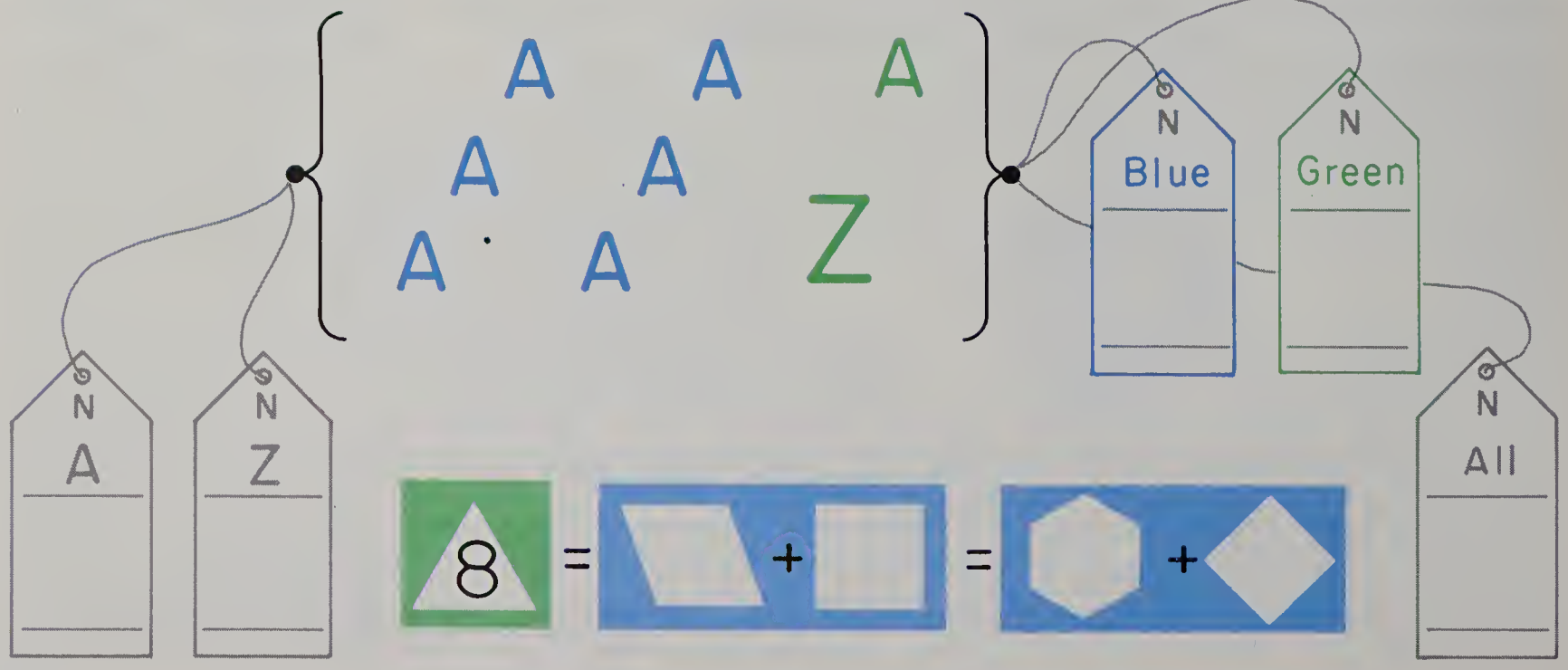
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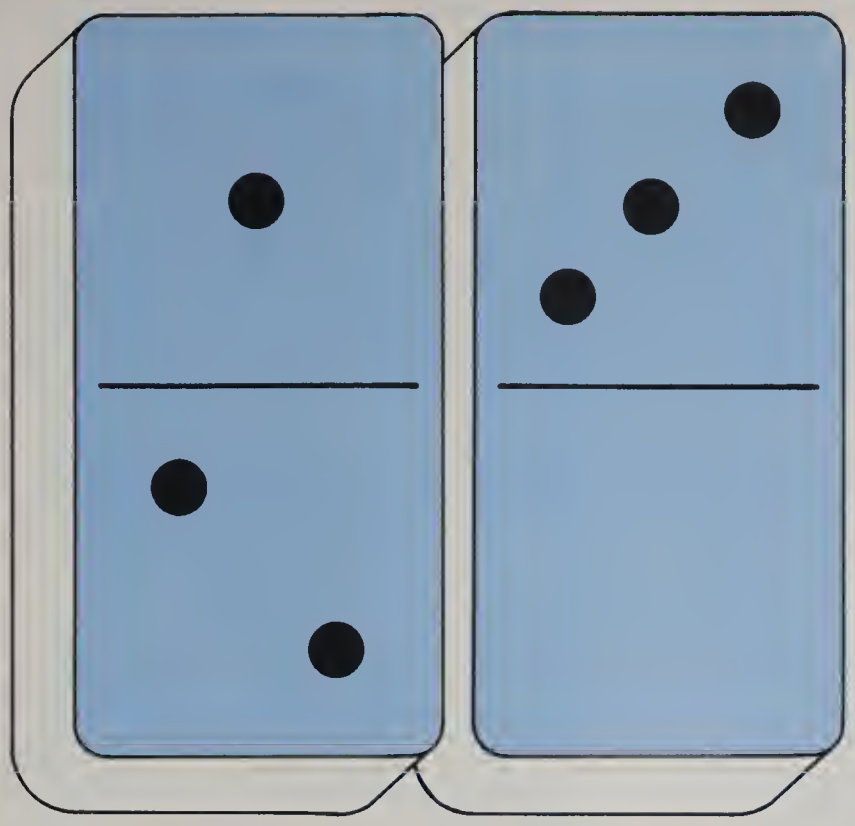

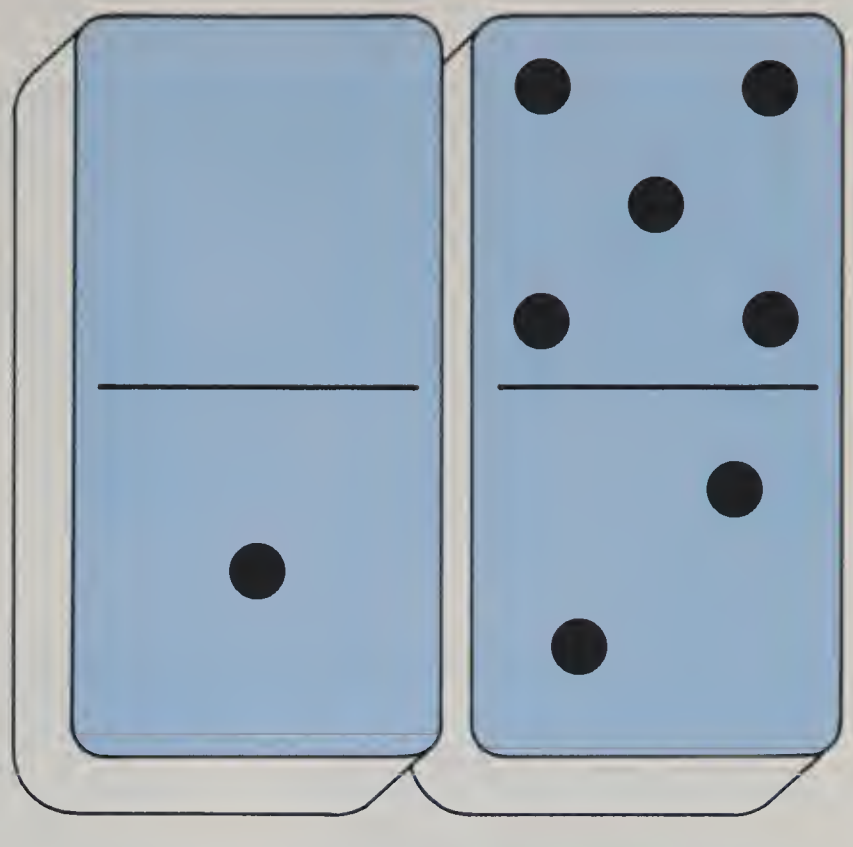

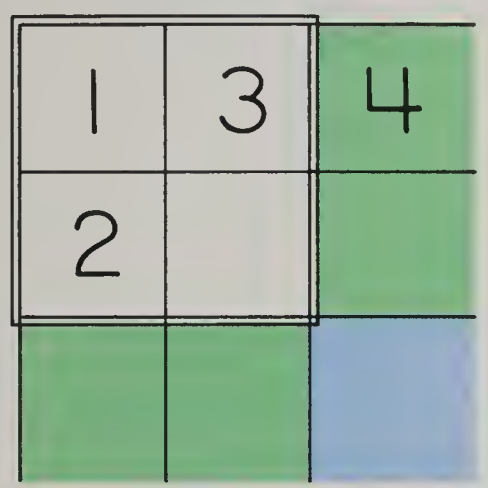
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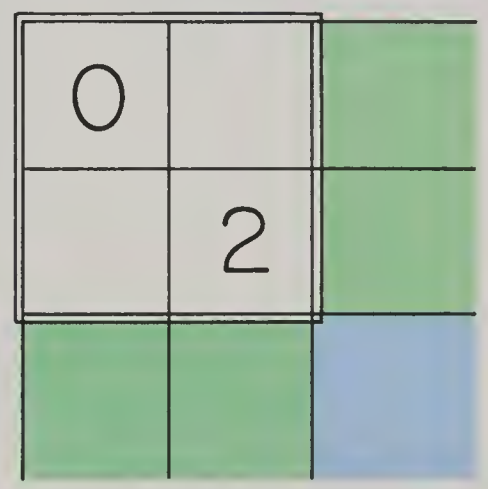
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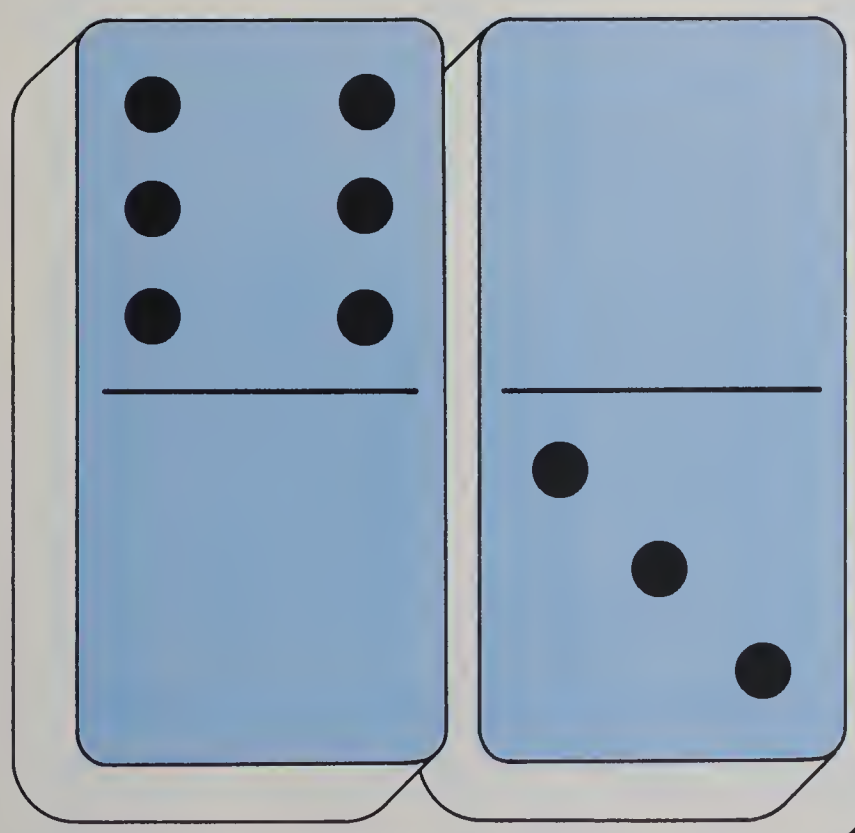

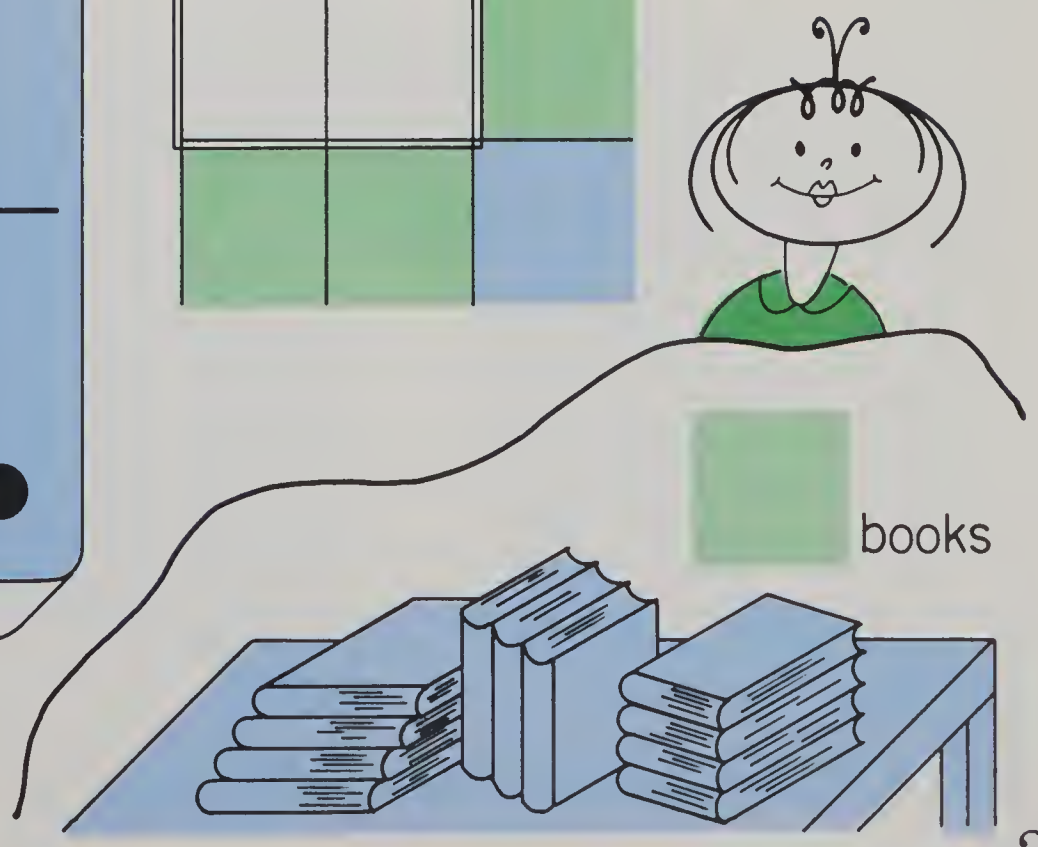
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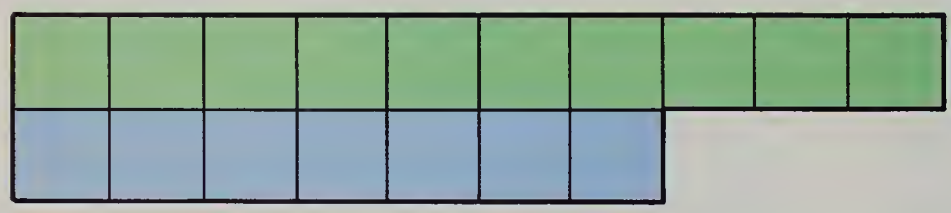

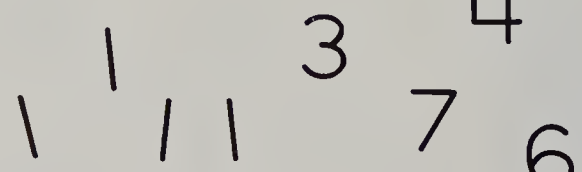

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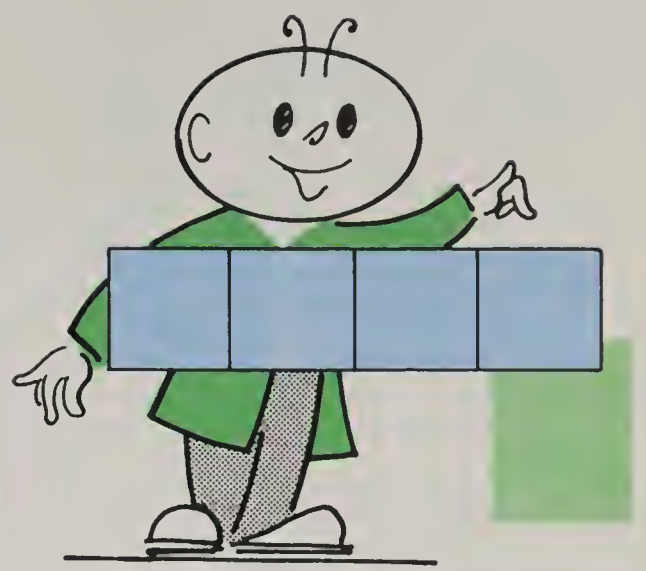

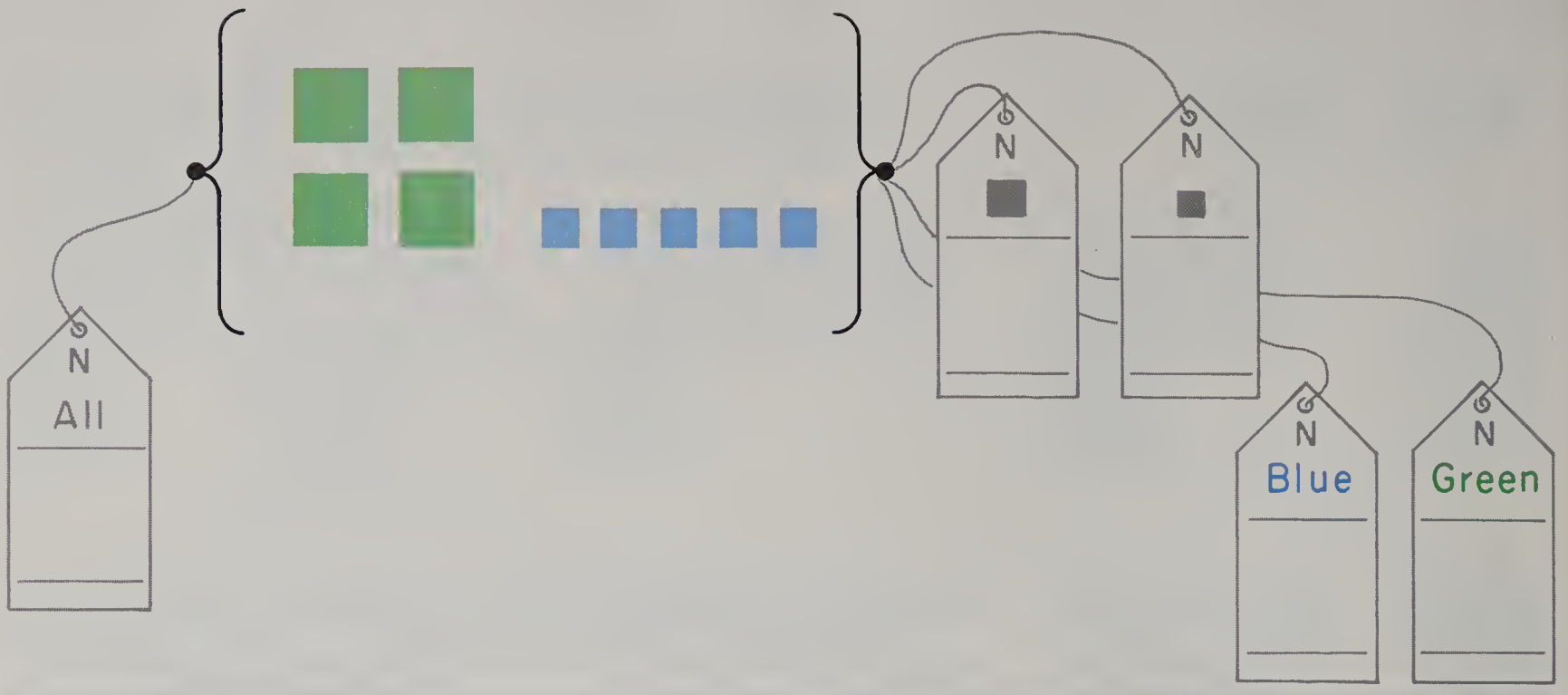
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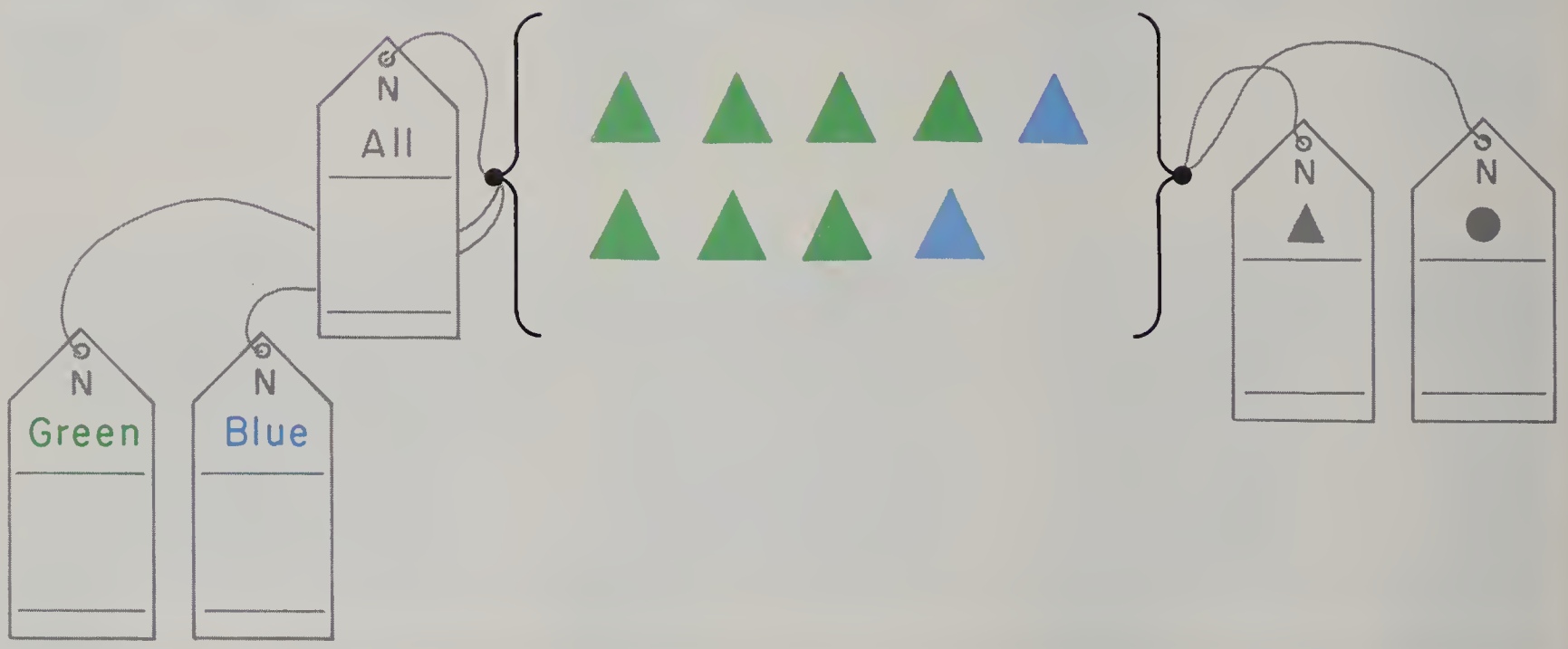
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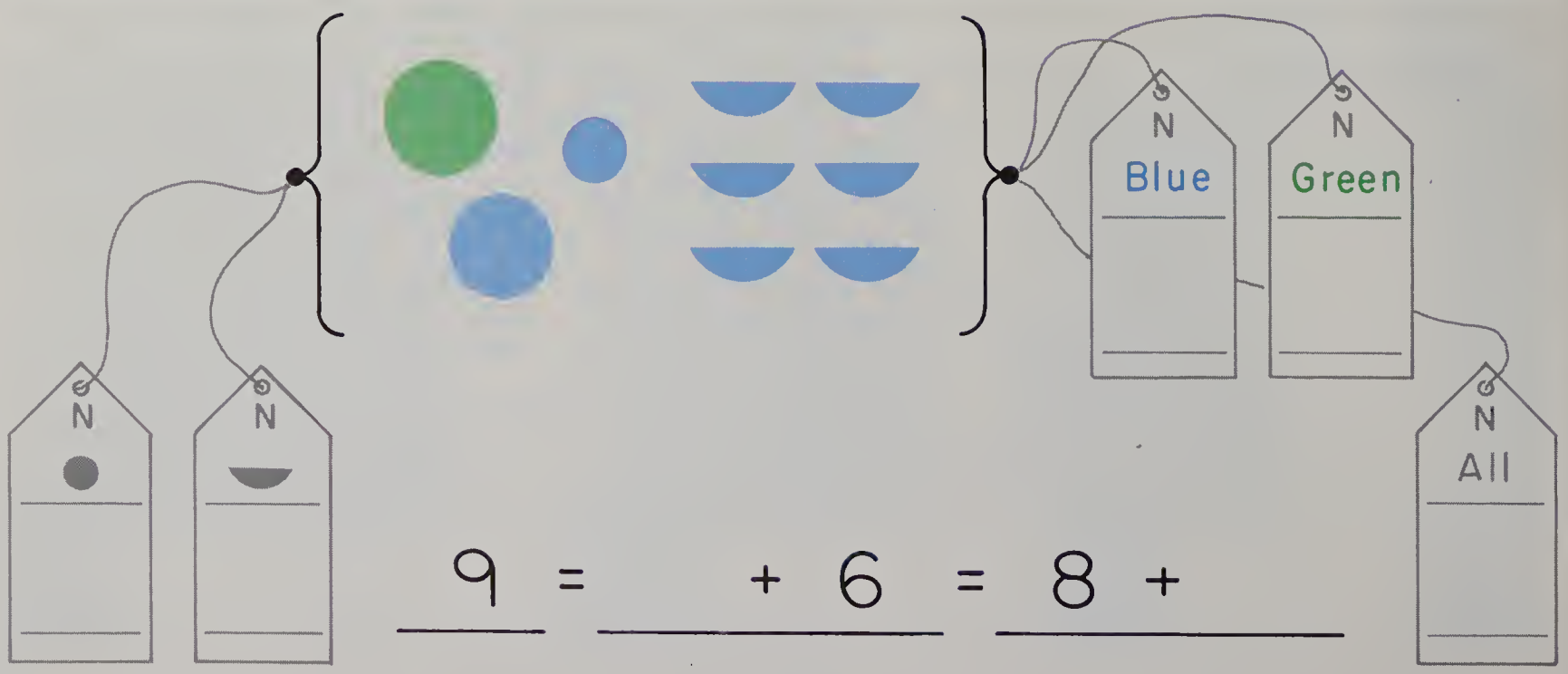
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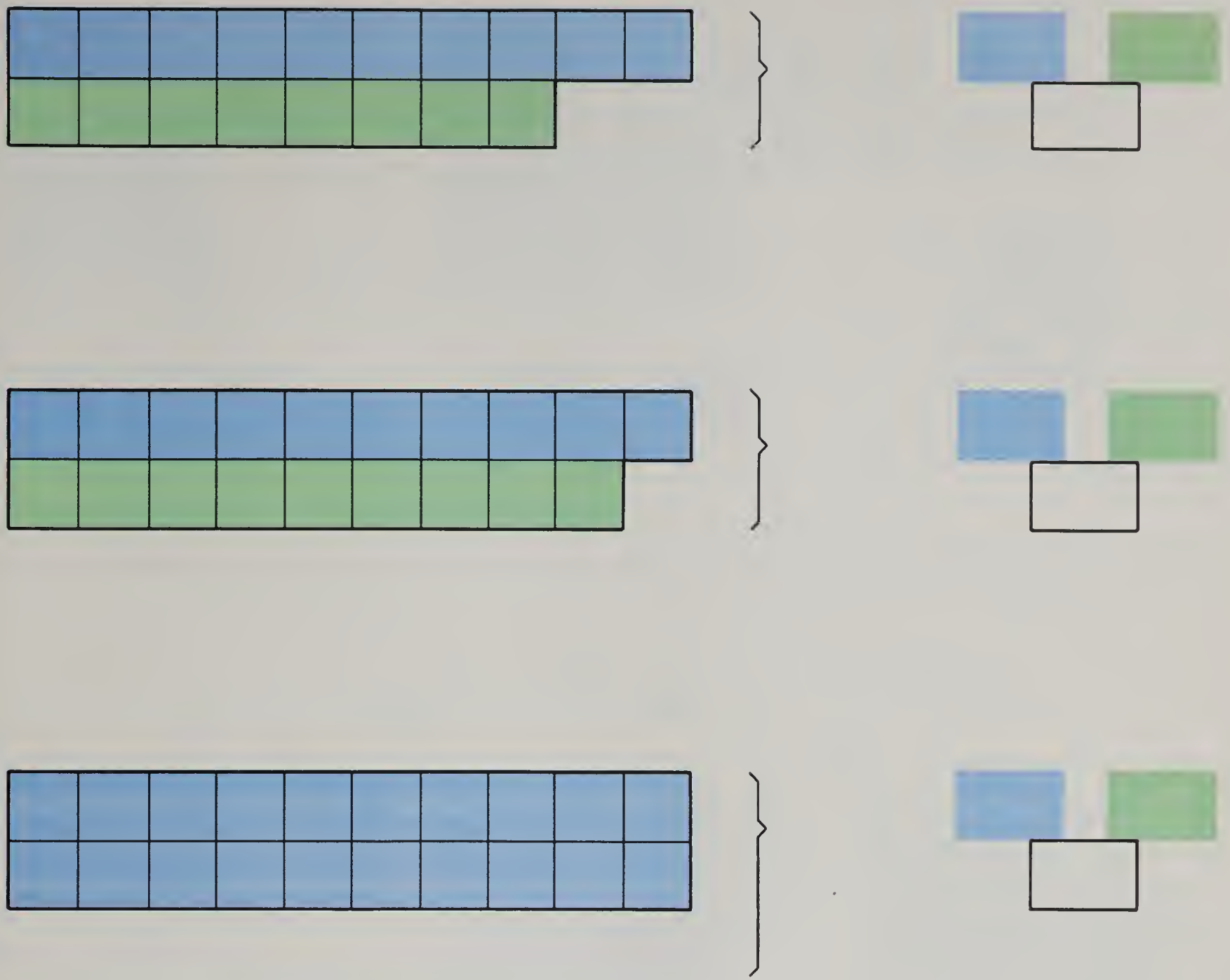

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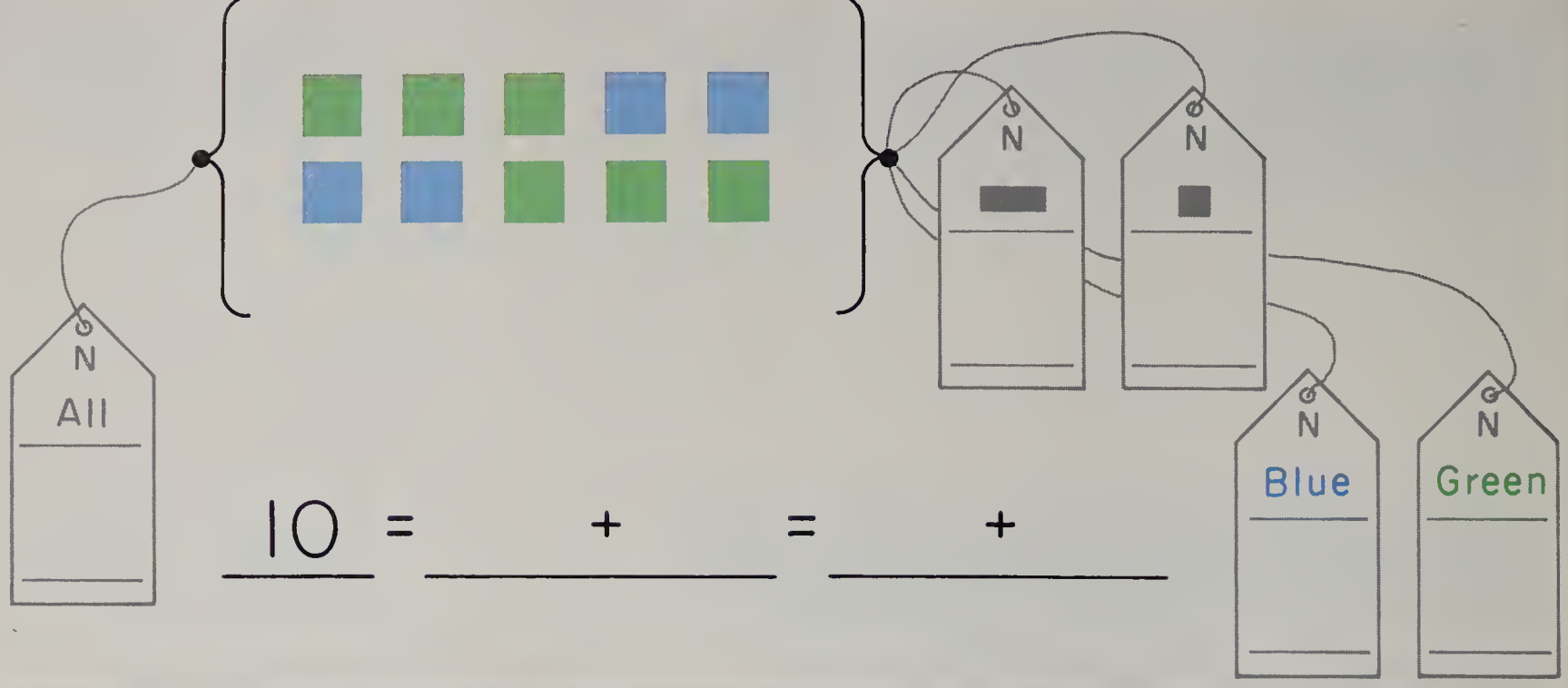
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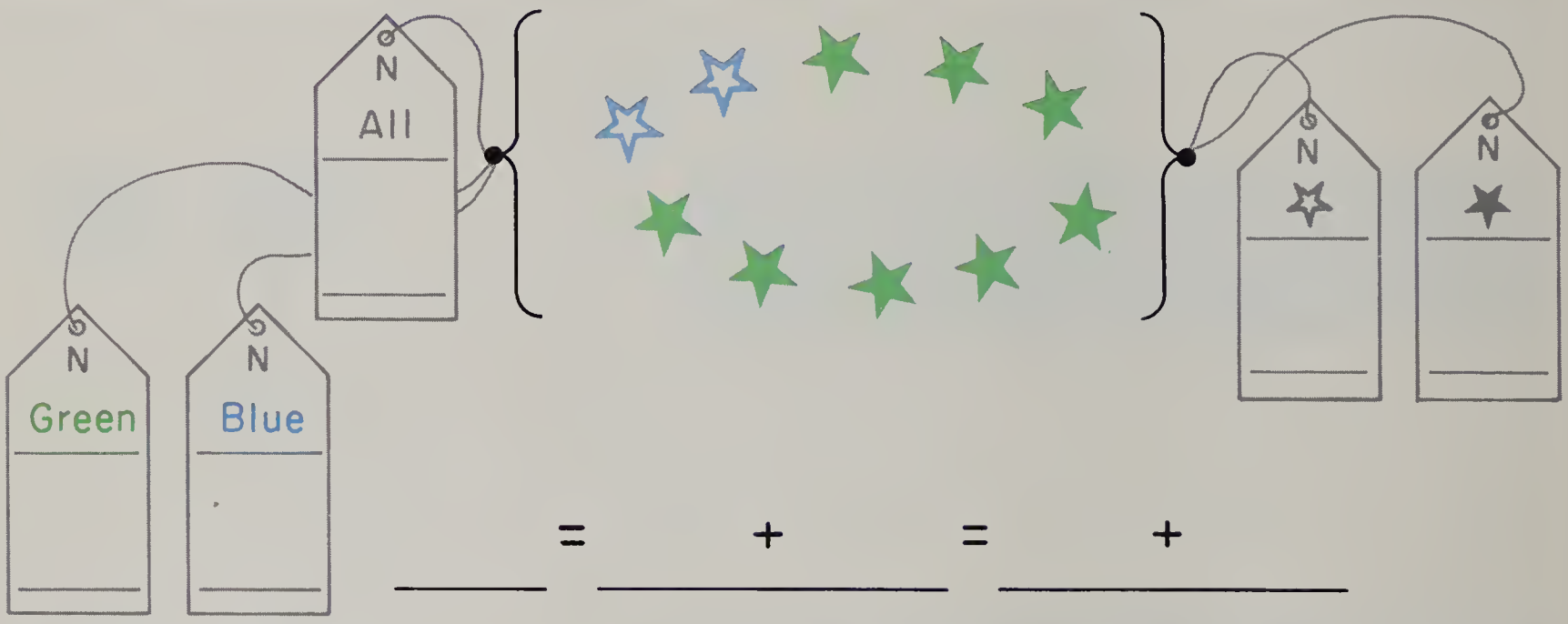
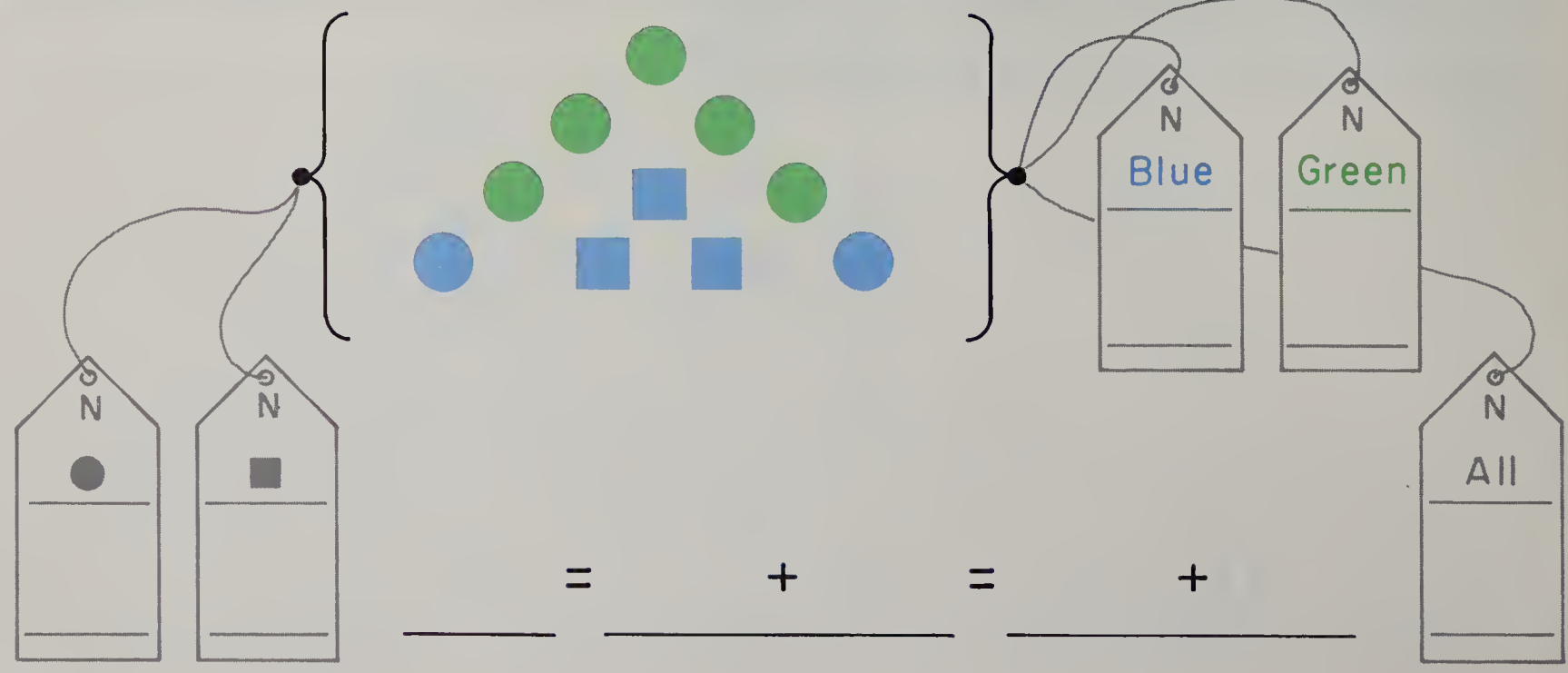
10 = ____ + ____ = ____ + ____


N
All
N
Green
N
Blue
N
N

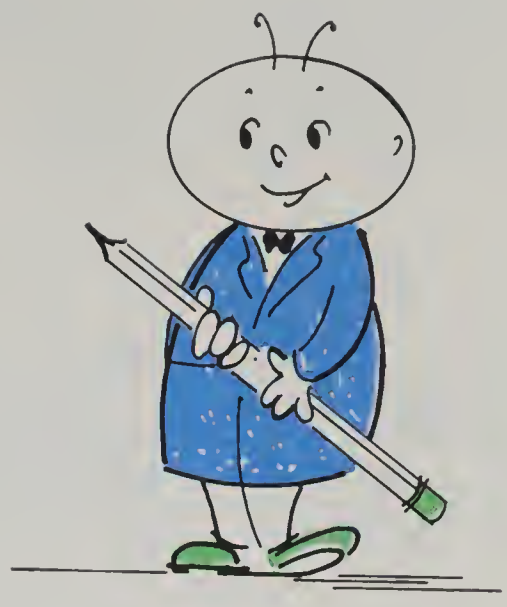
____ = ____ + ____ = ____ + ____

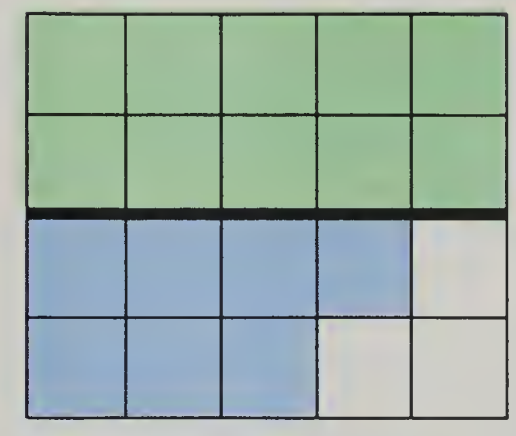

N
Blue
N
Green
N
All
N
N

____ = ____ + ____ = ____ + ____

10 6

8 8





7

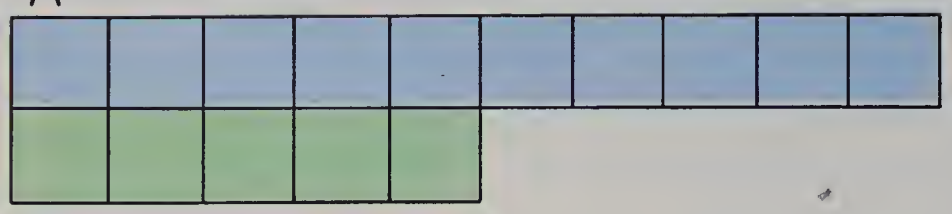
9

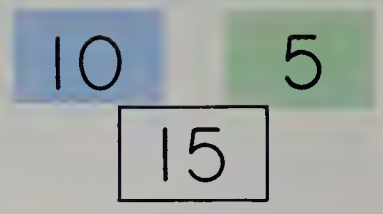
10 4

9 3

4 8

A





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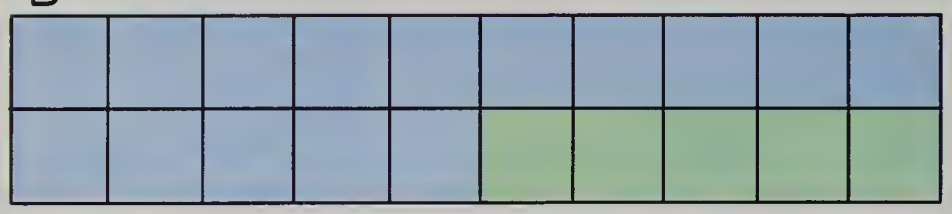

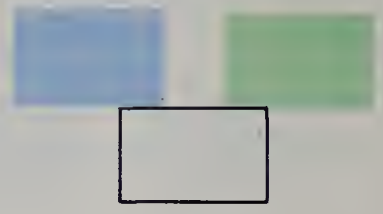

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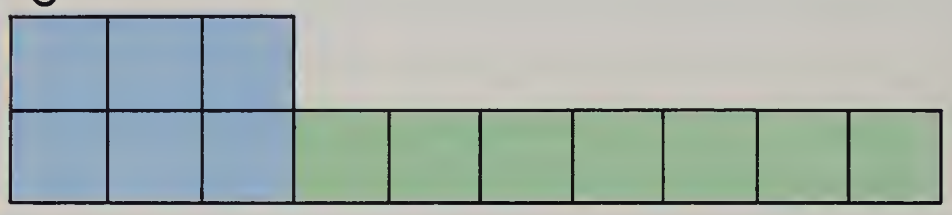

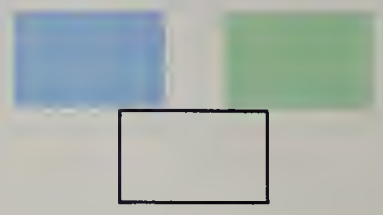

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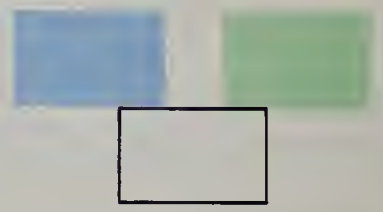

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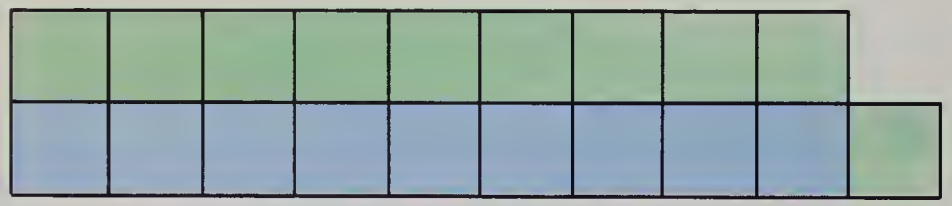

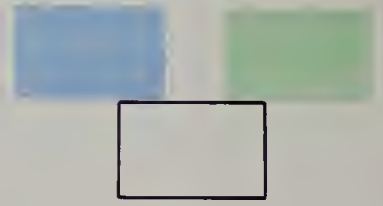

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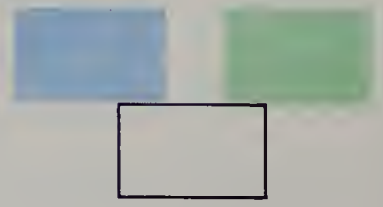
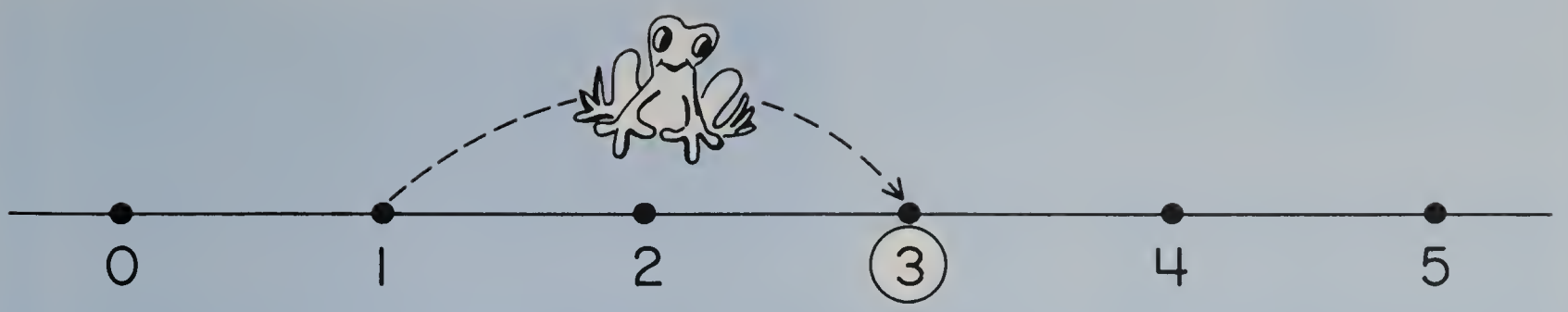
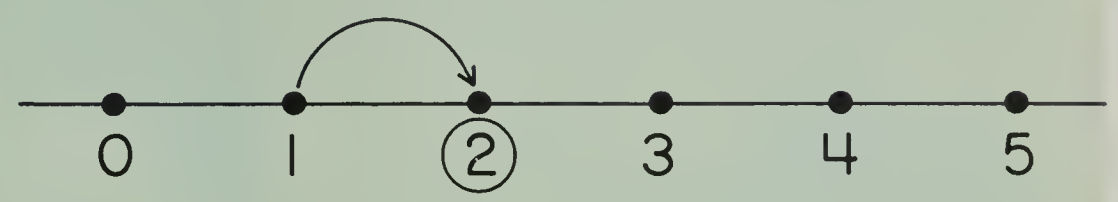




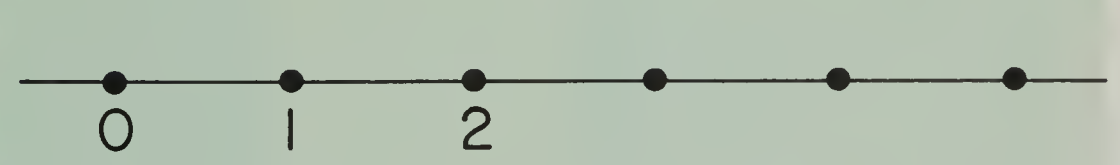
start 1 jump 2 goes to land 3

start 1 jump 1 land

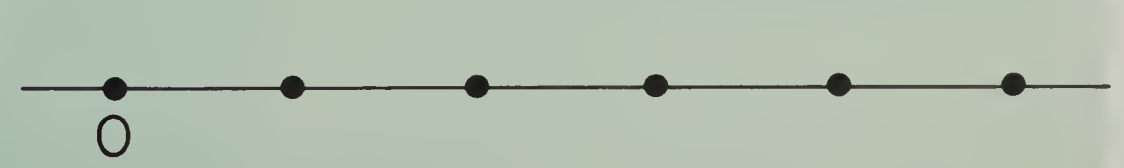


2 1

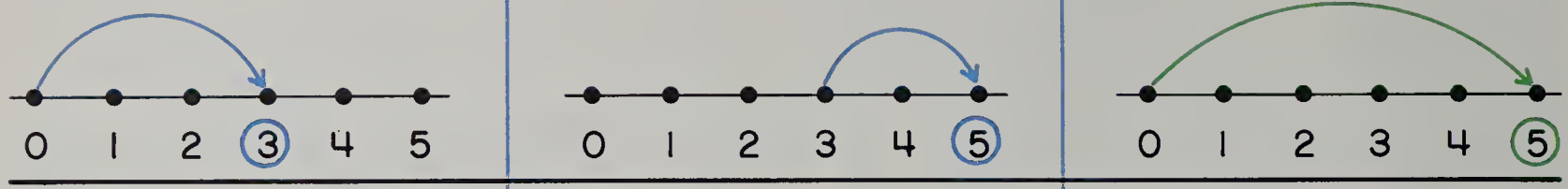
3 1



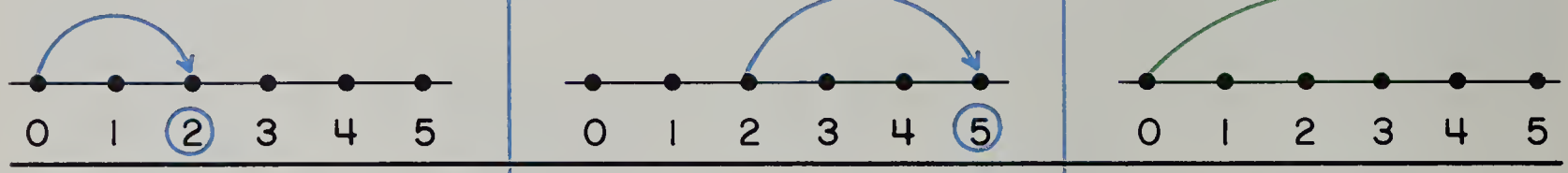
4 1



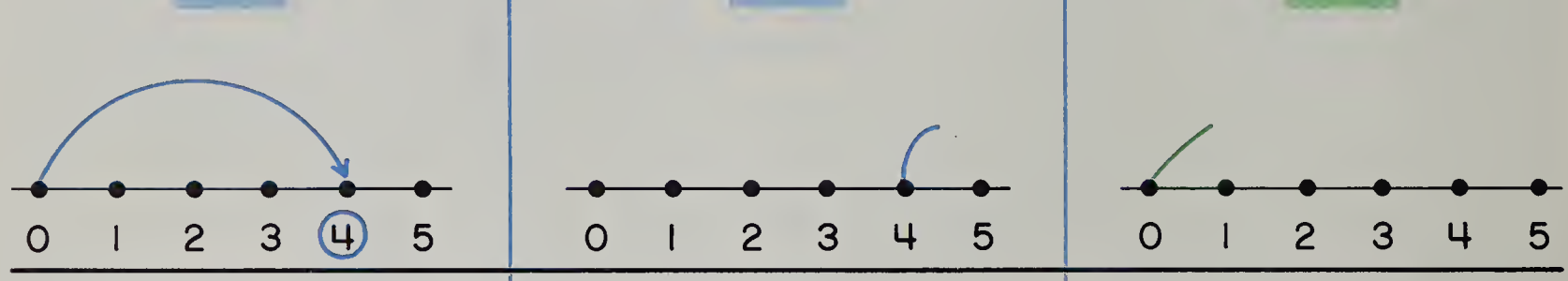
3 and 2 → 5



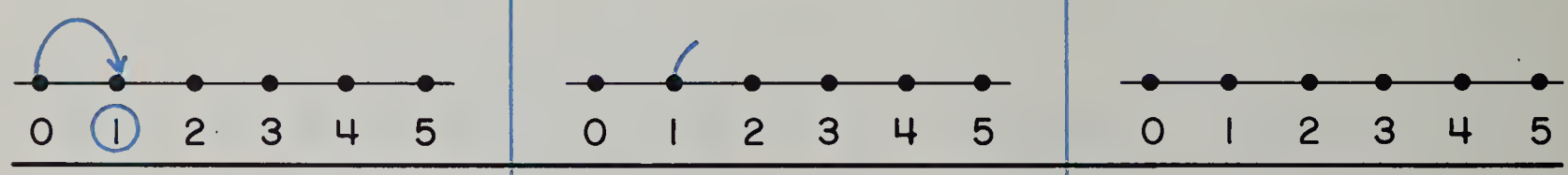
2 and 3 → ☐



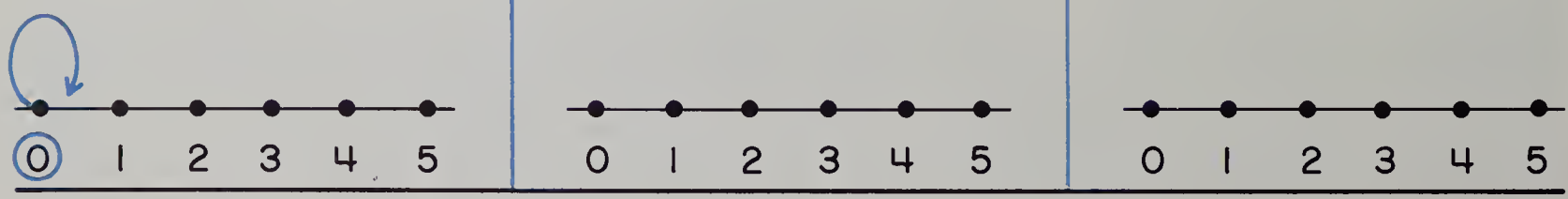
☐ and 1 → ☐

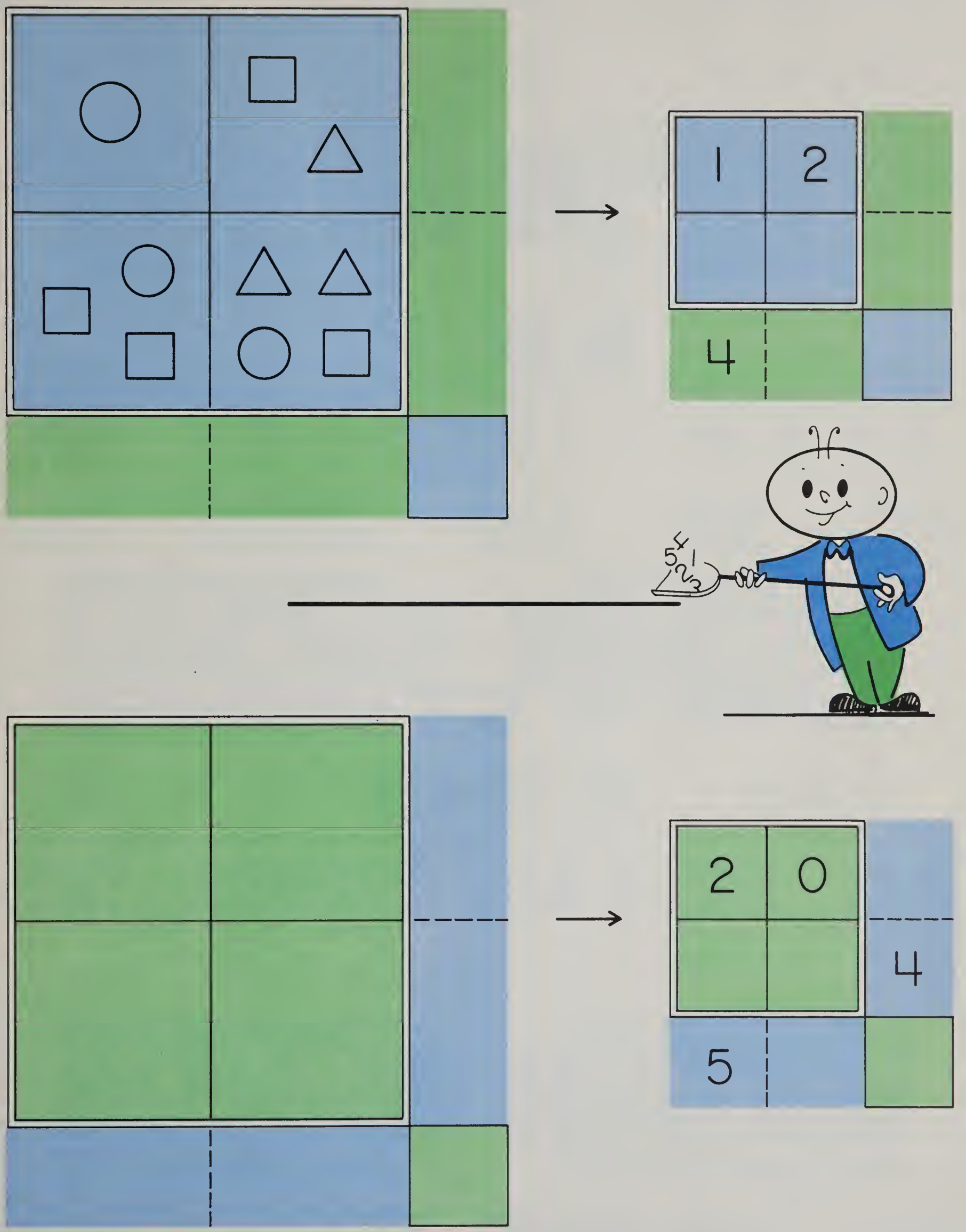


☐ and 4 → 5



0 and 5 → ☐

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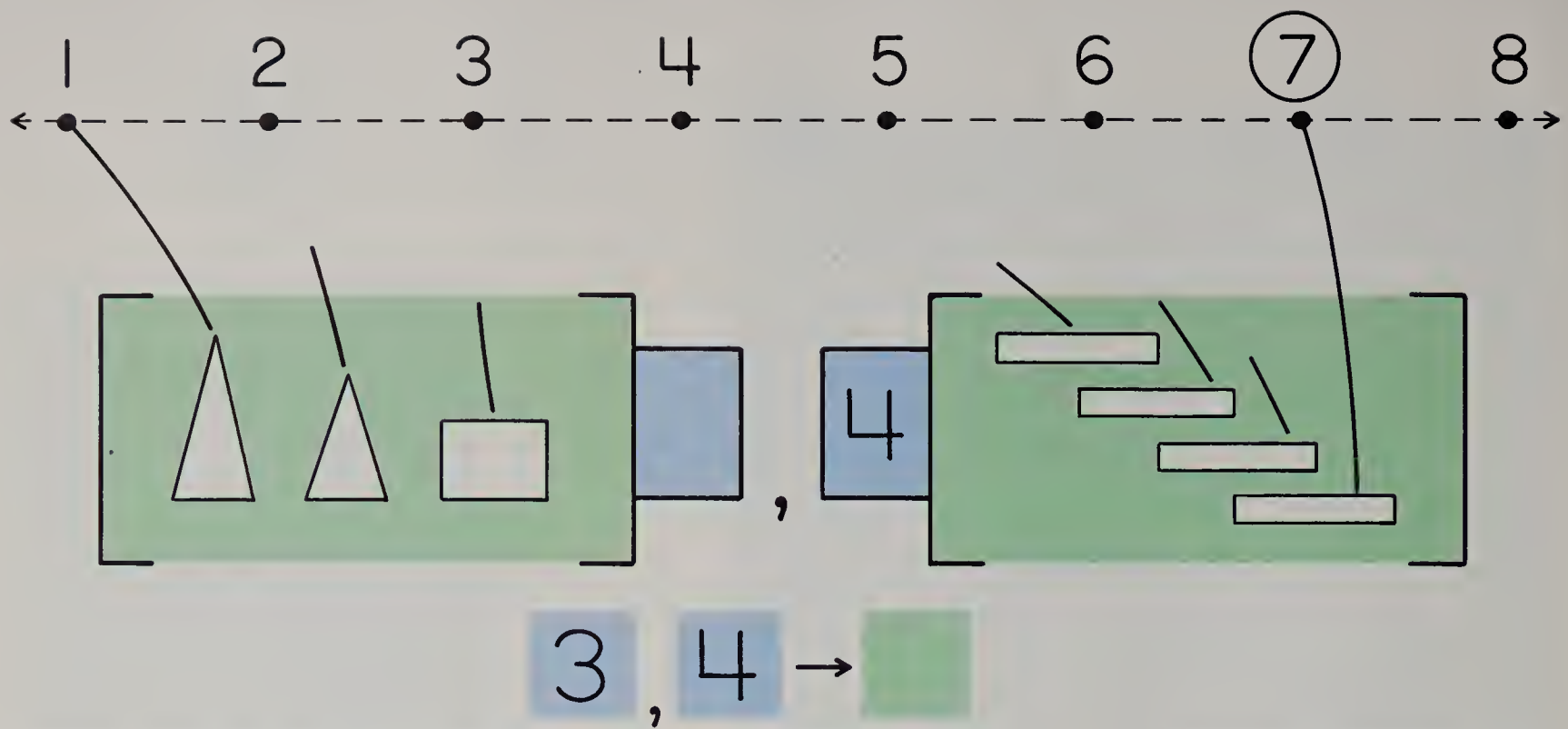
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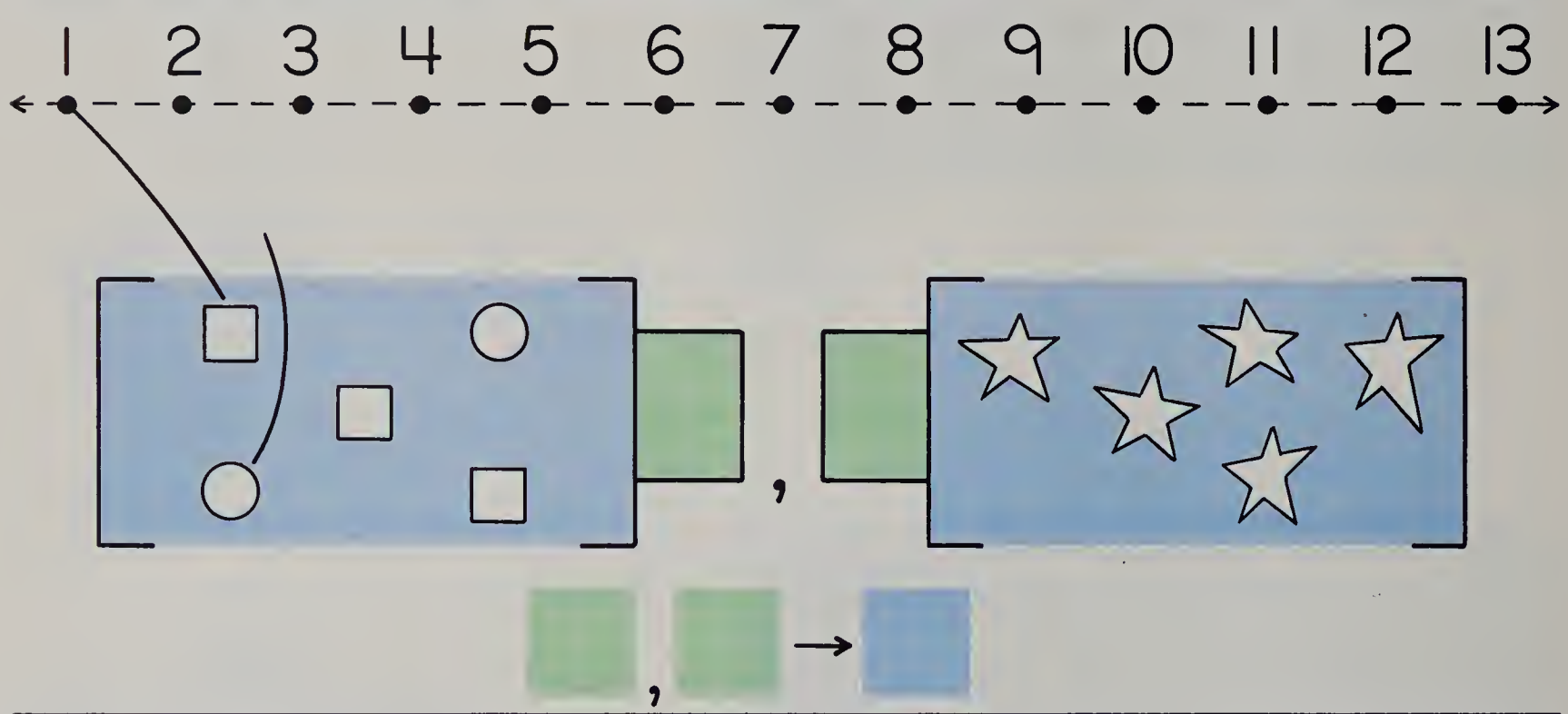
3 , 4 →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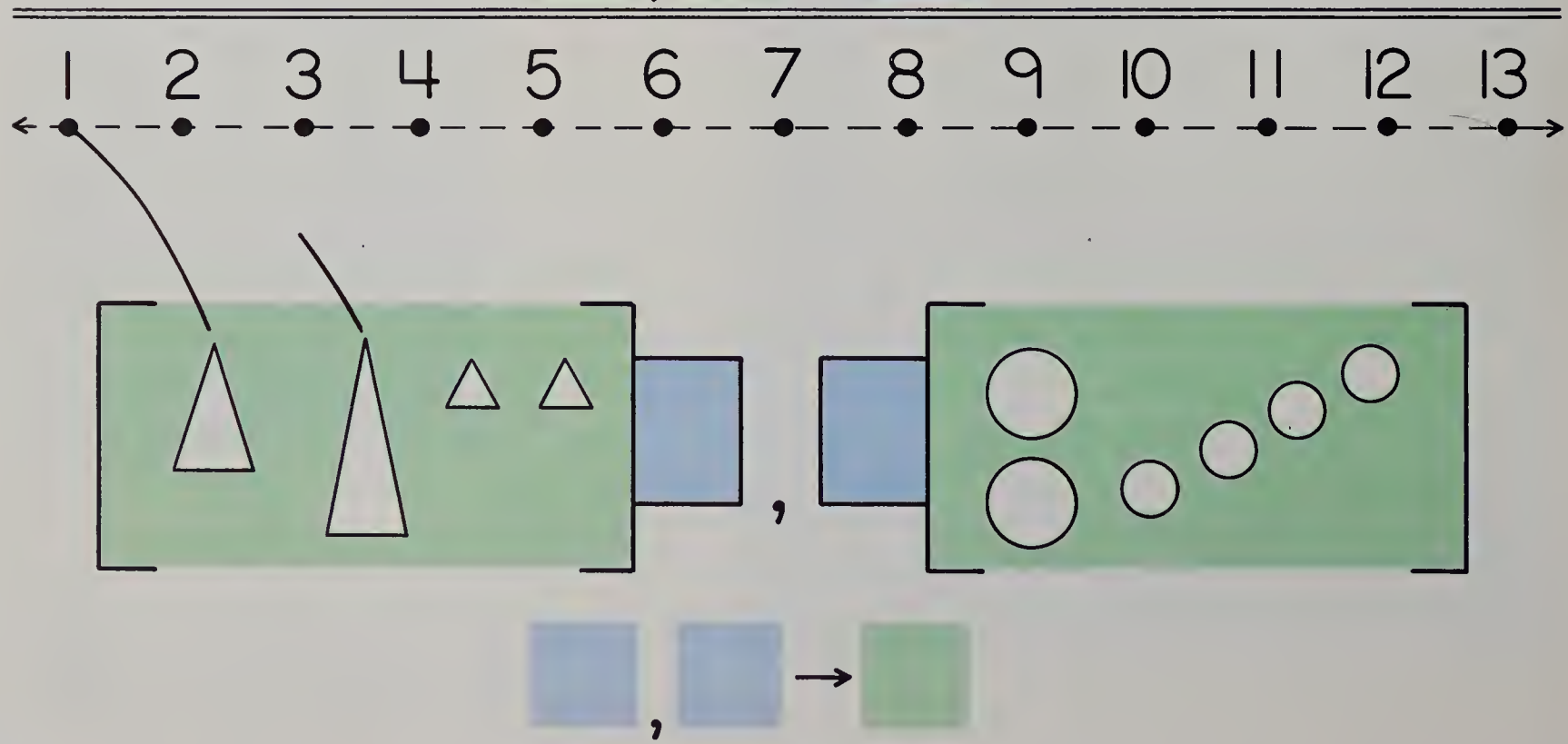
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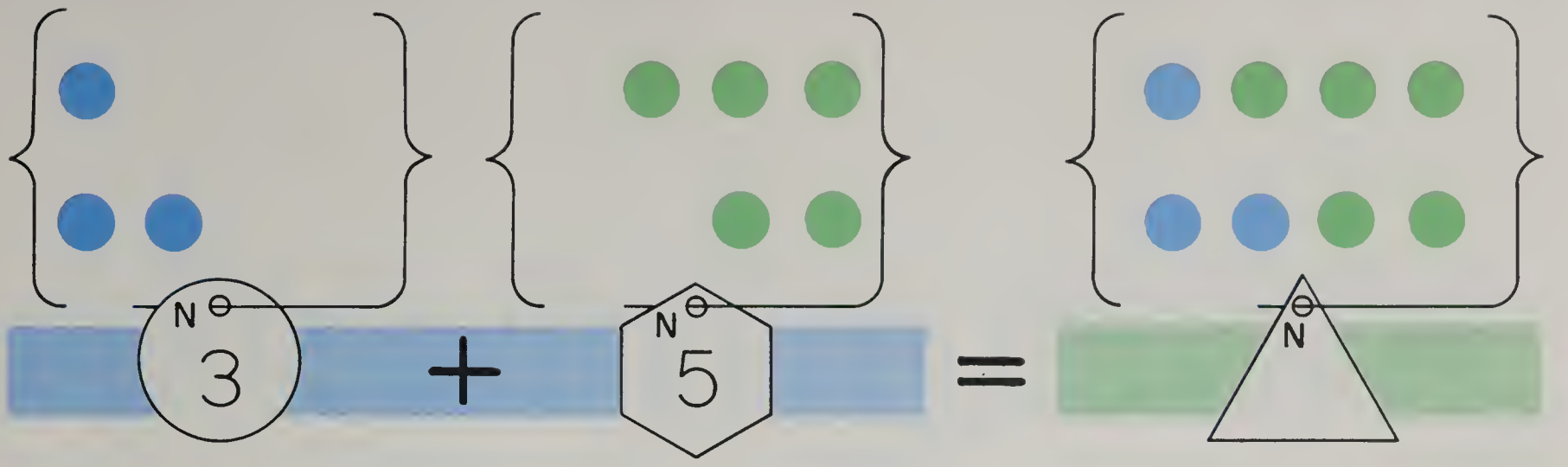
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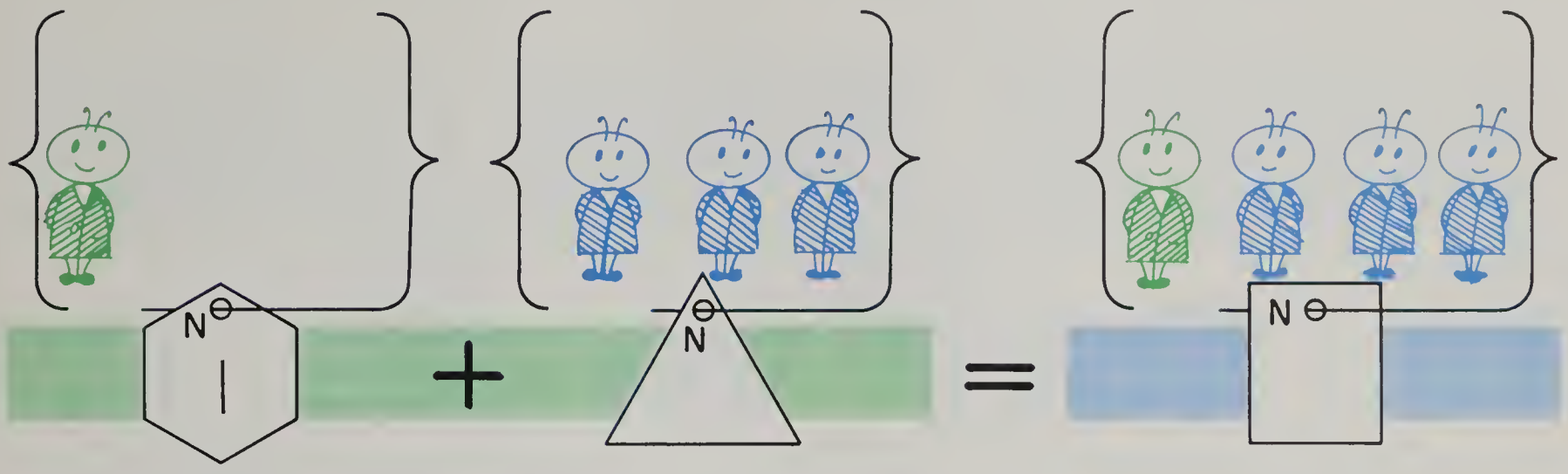
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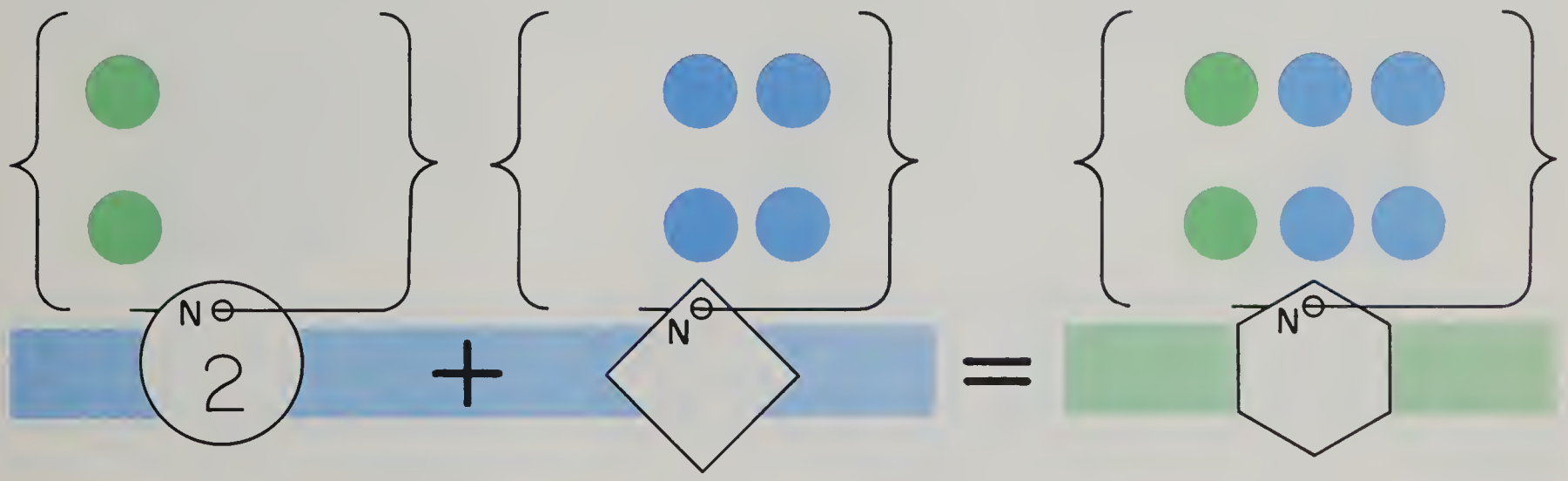
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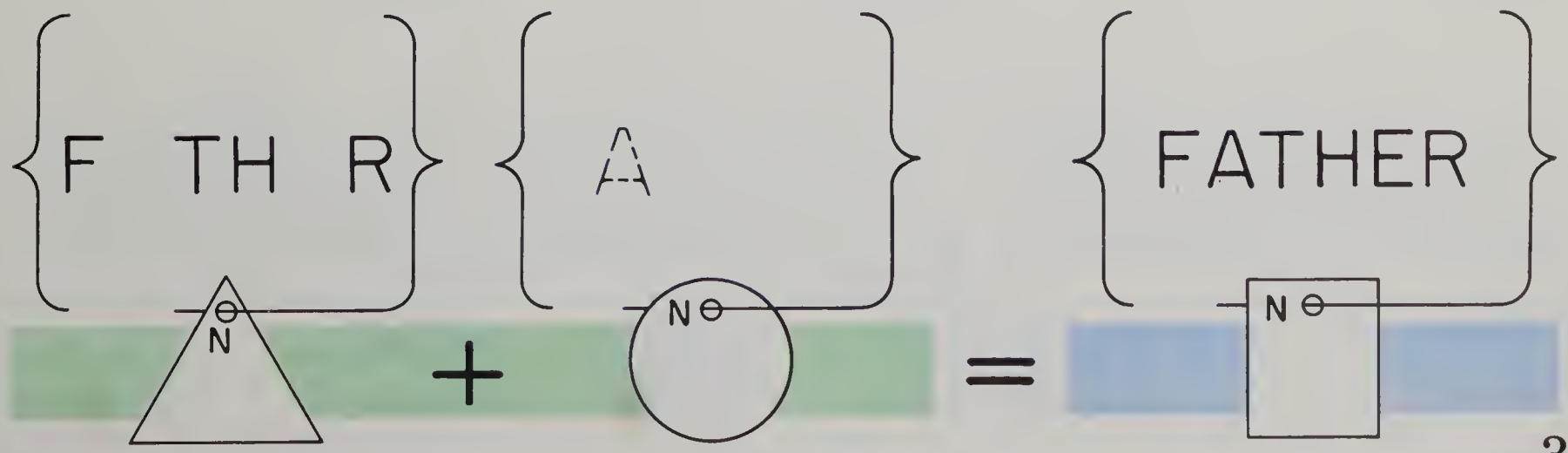
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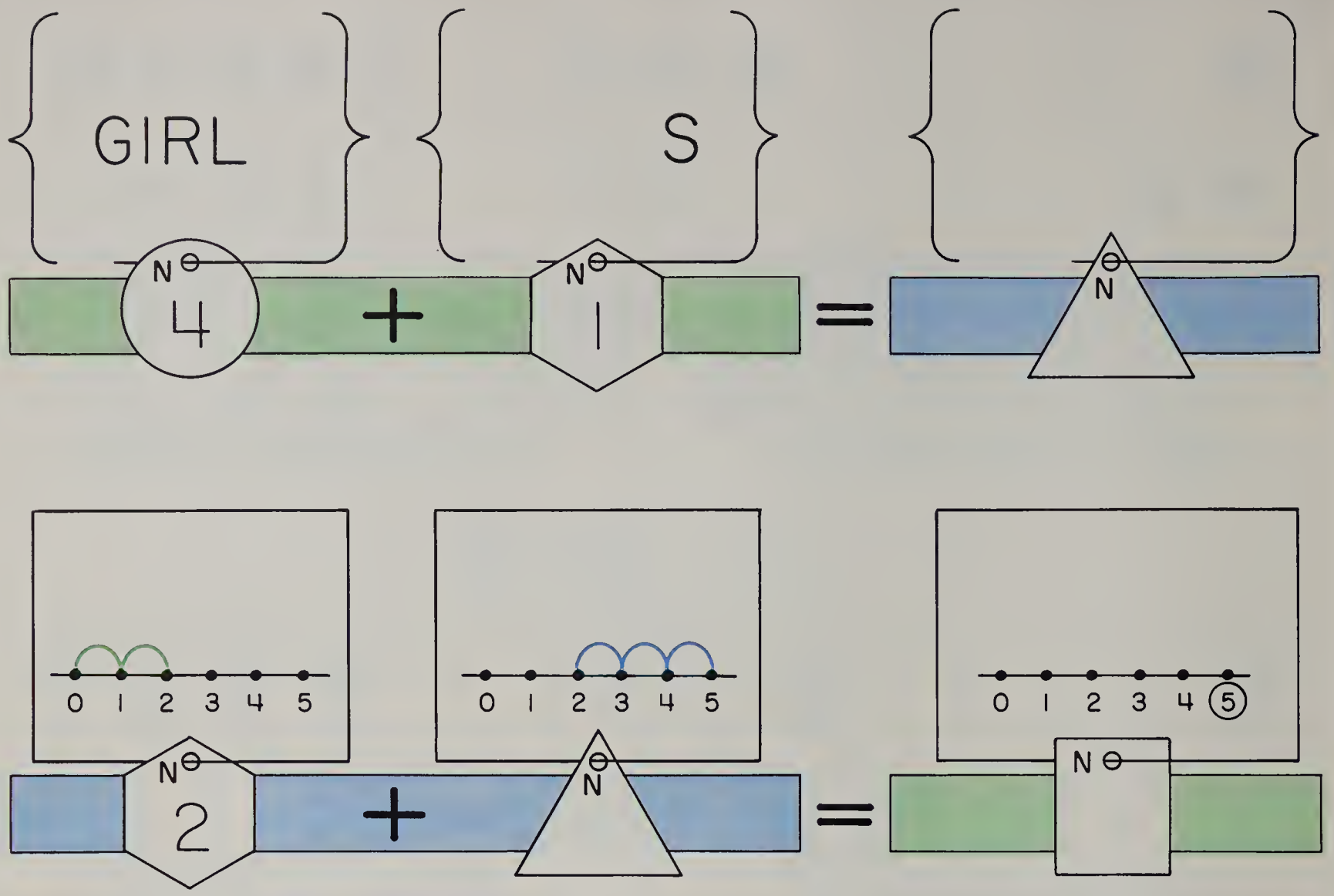
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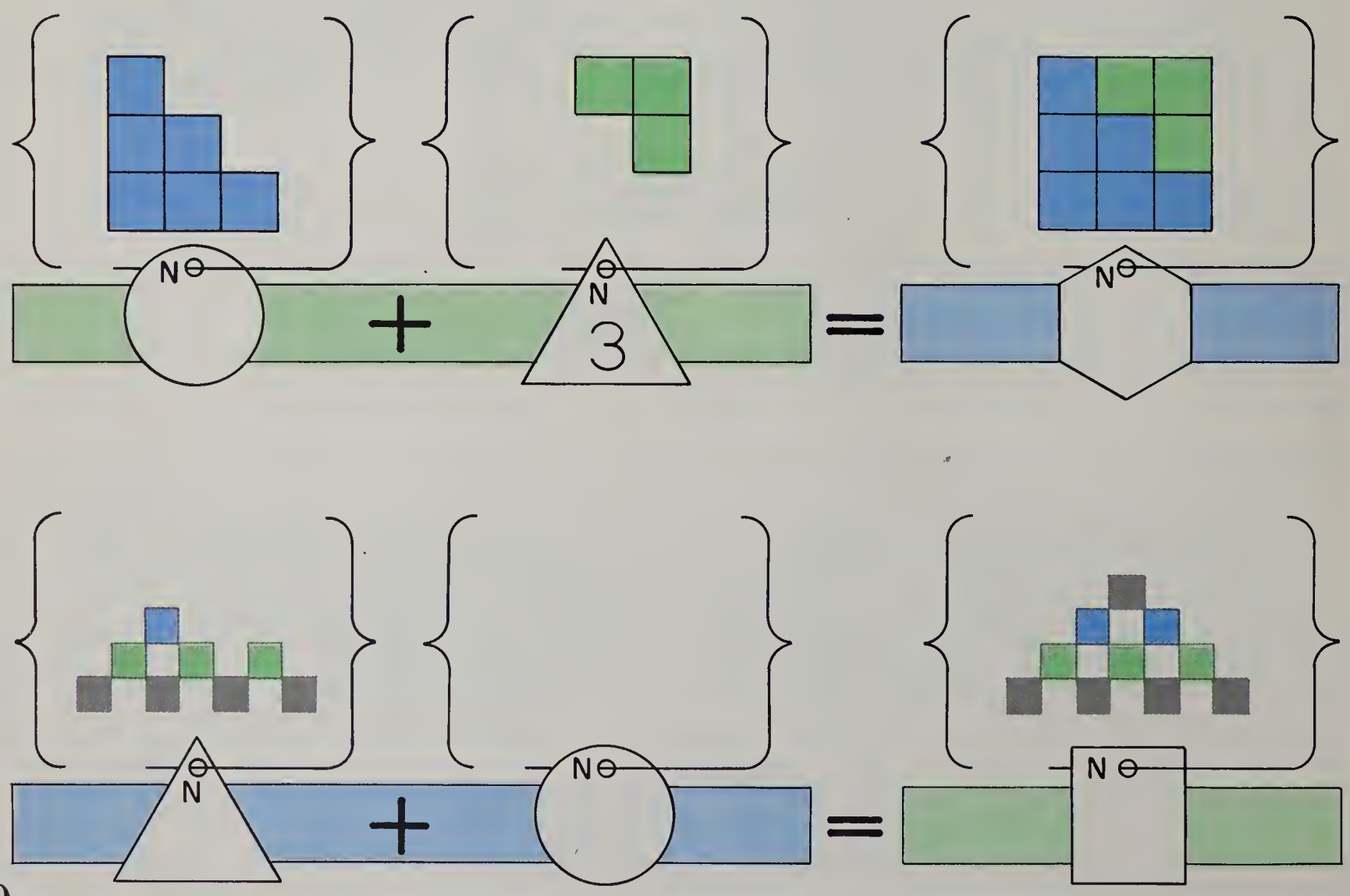
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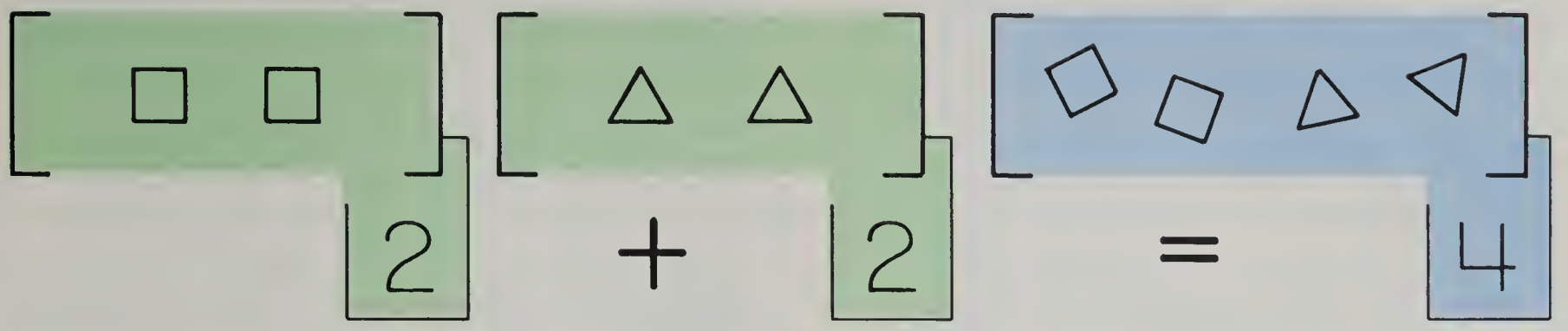

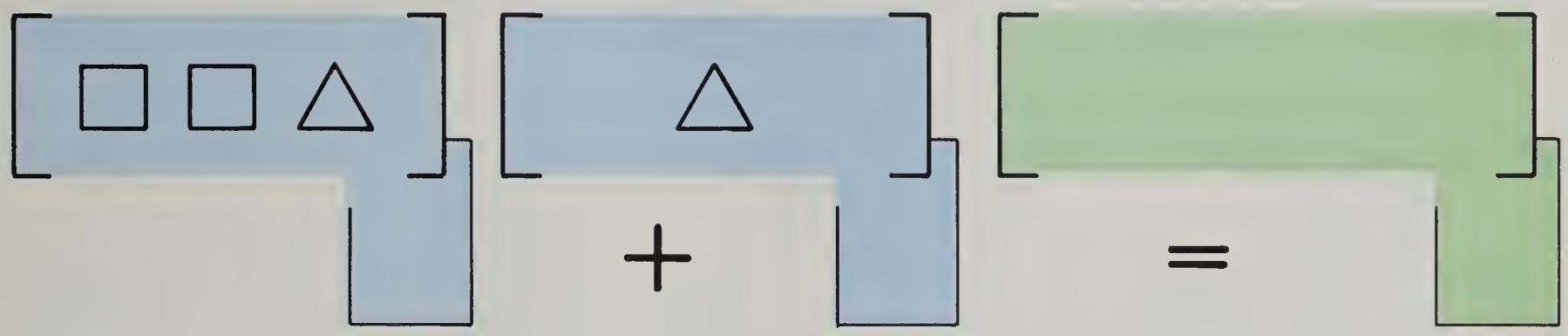

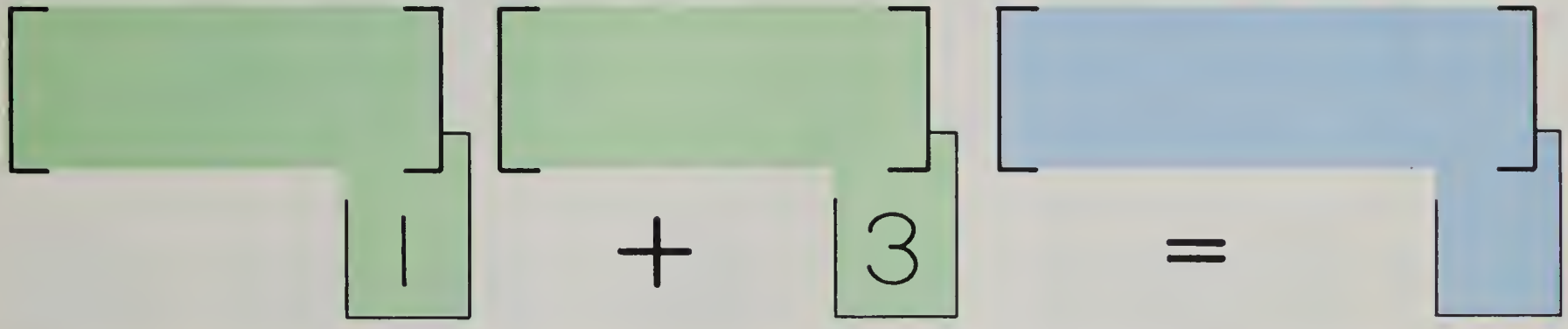

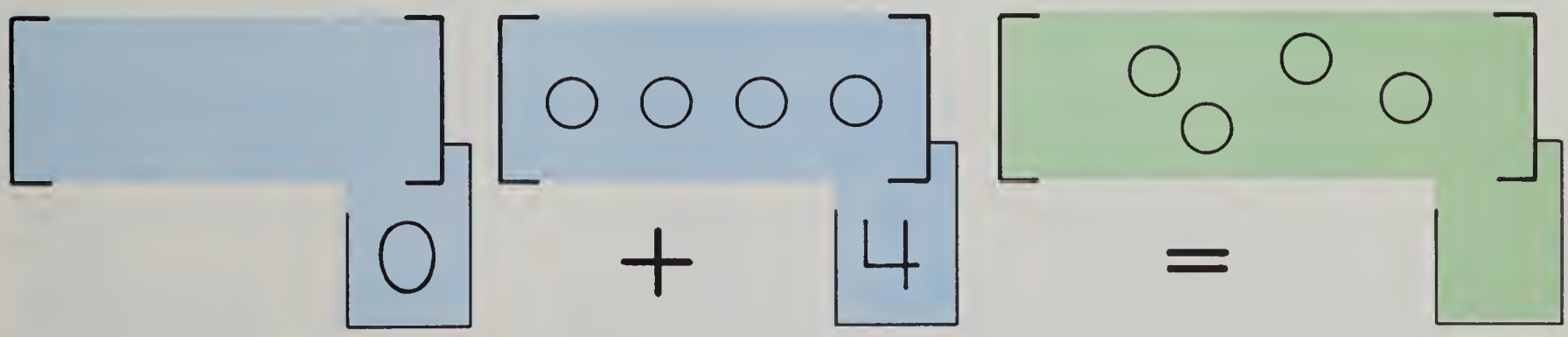

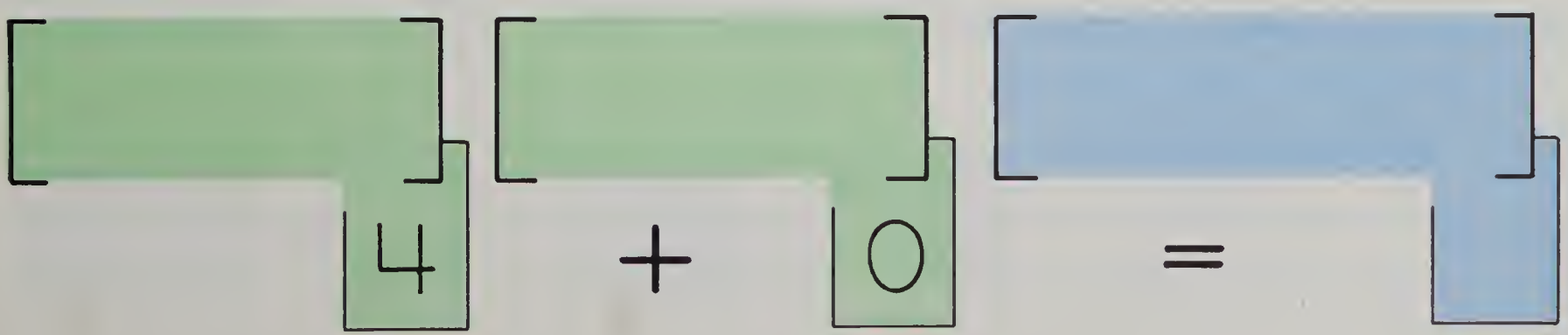

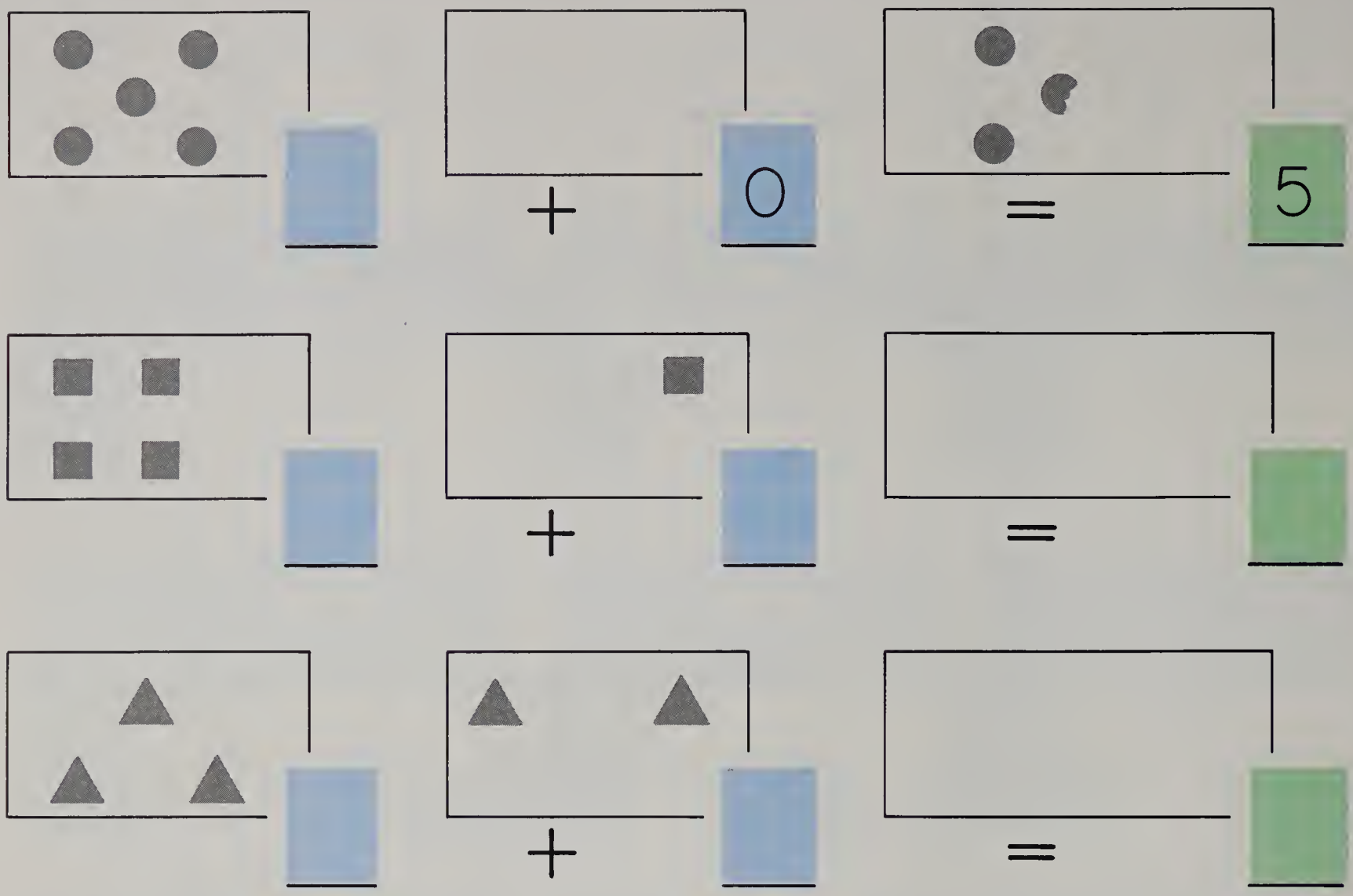
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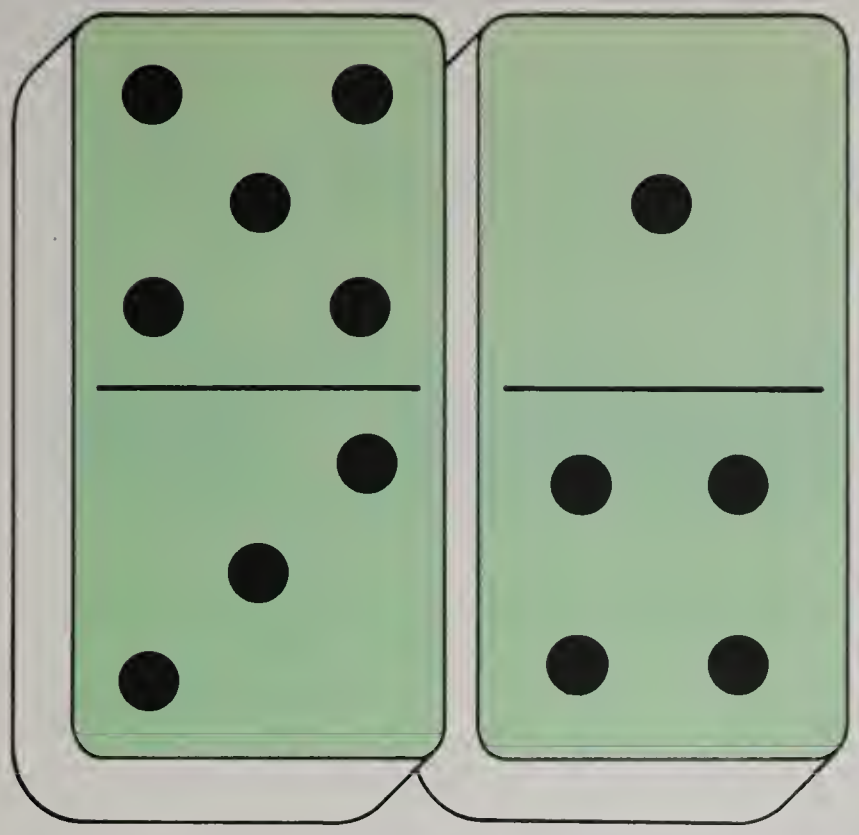
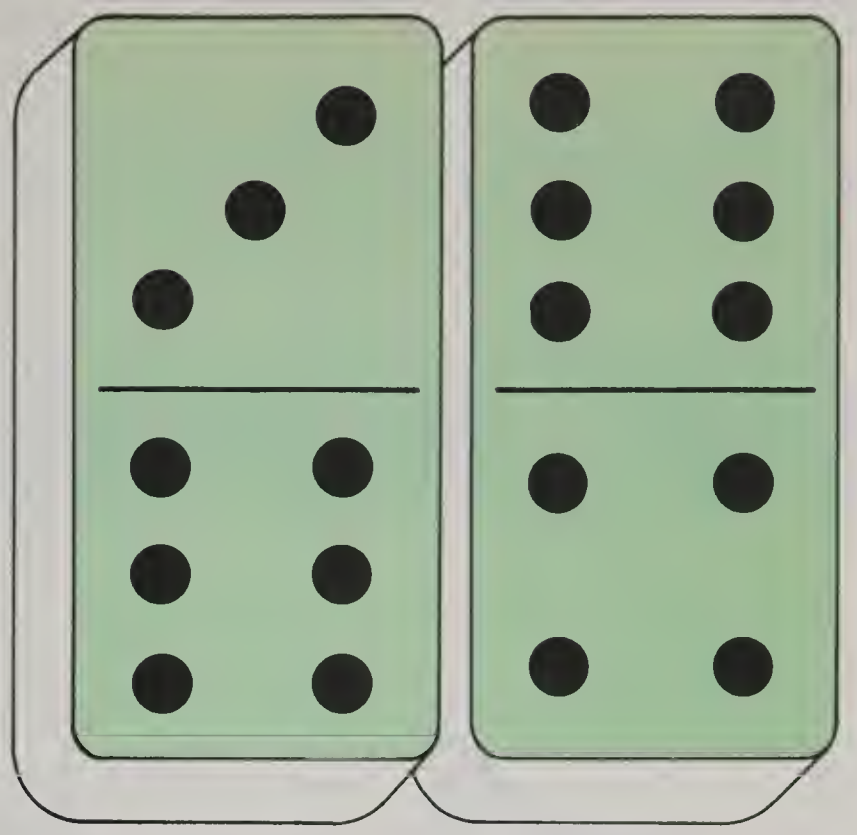
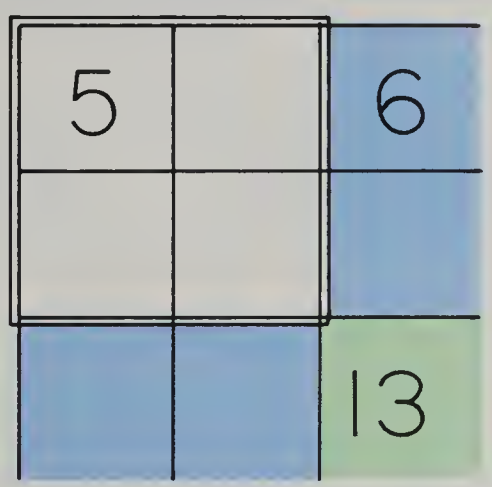
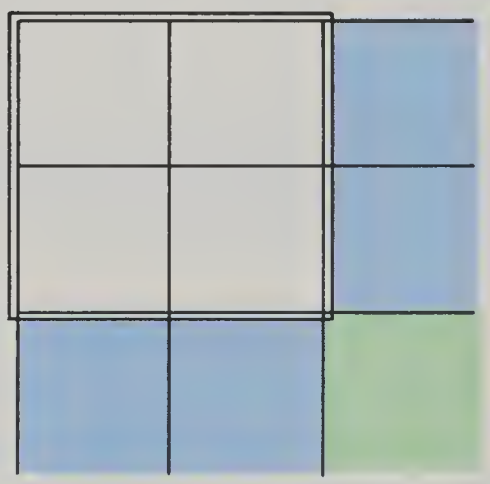








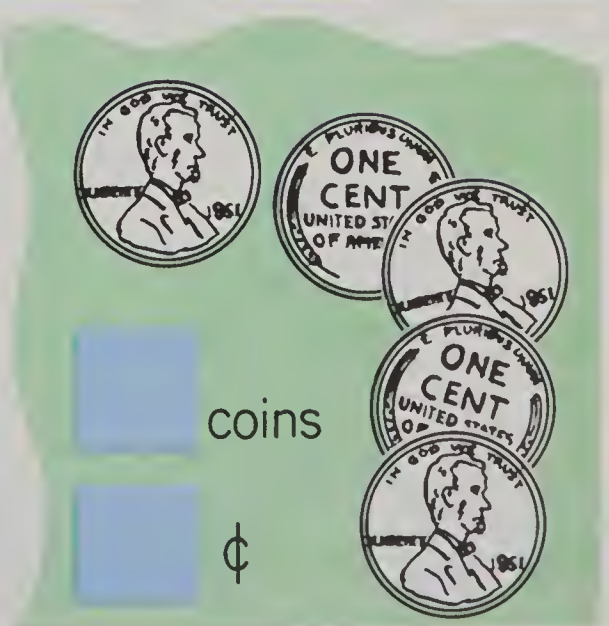
1	2	2	3	3	4	4	5
+ 2	+ 1	+ 3	+ 2	+ 4	+	+	+
3					7	9	9

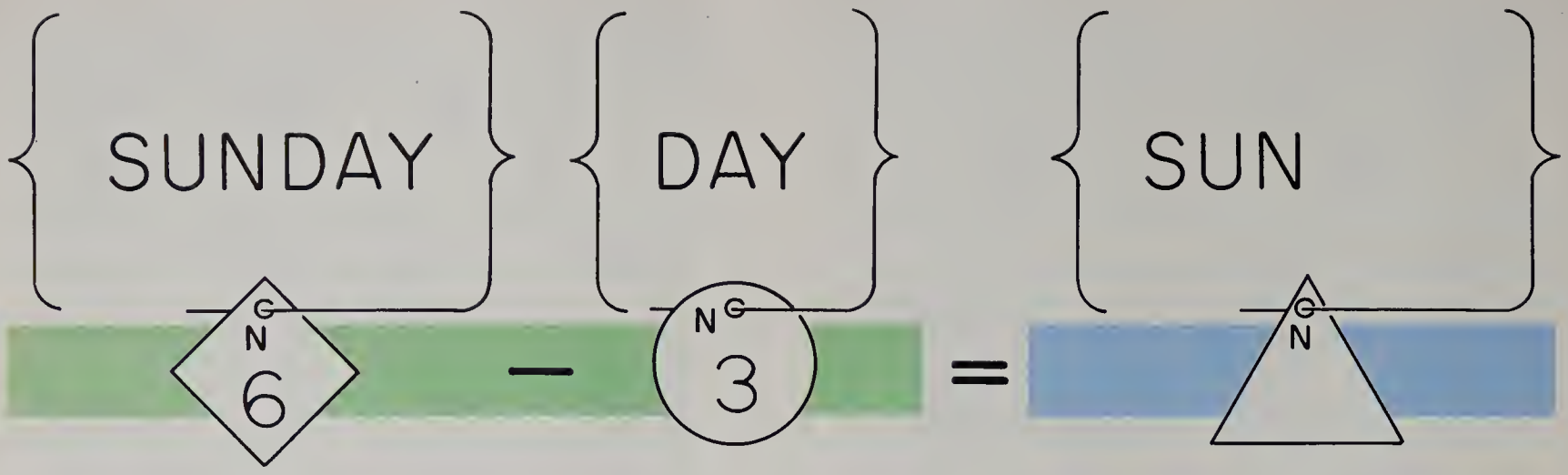
$5 + 2 = \square 7$

$2 + 5 = \triangle$

$6 + 3 = \hexagon$

$3 + \triangledown = 9$

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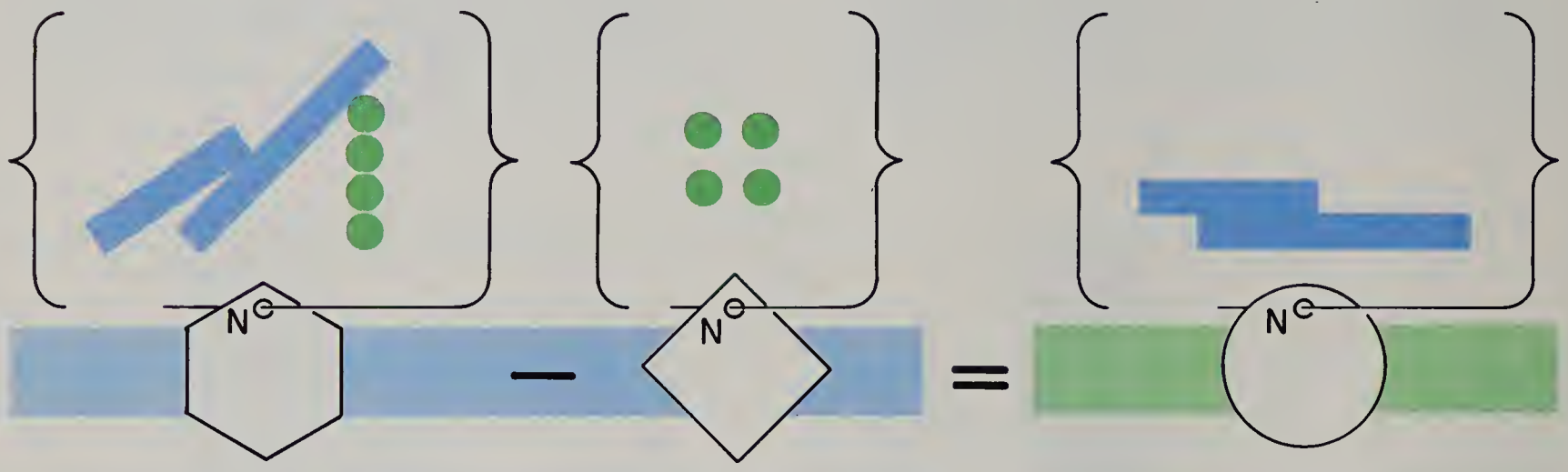
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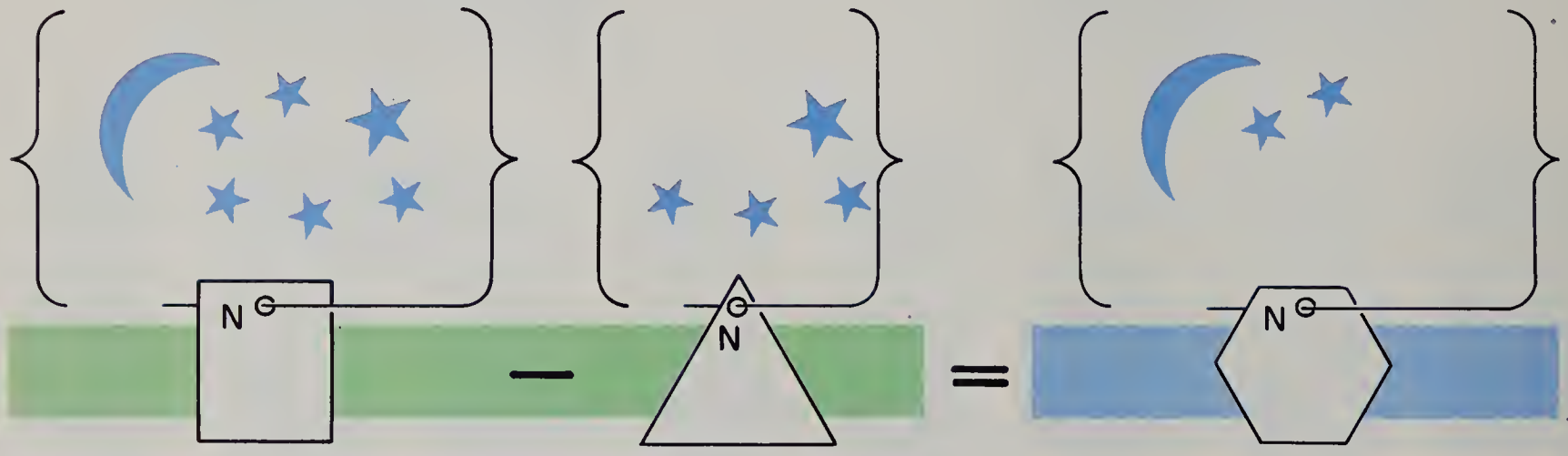
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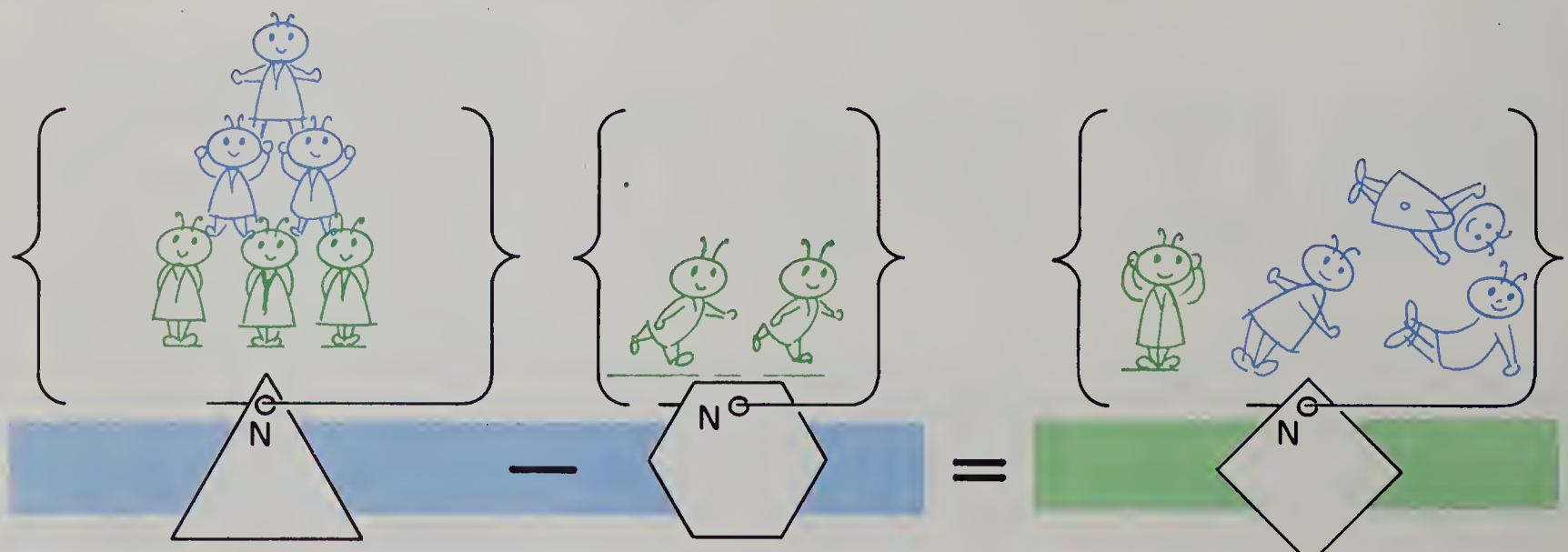
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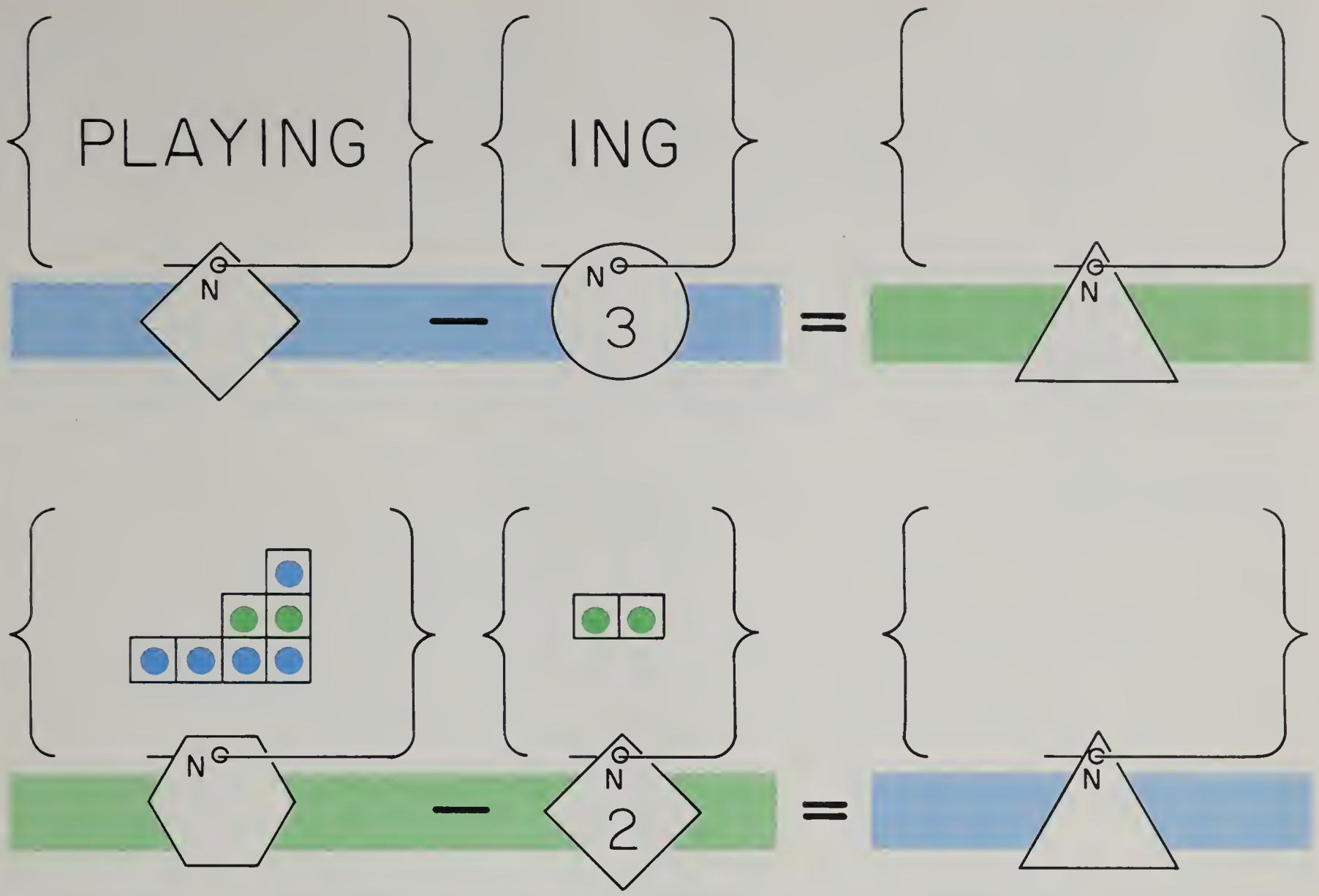
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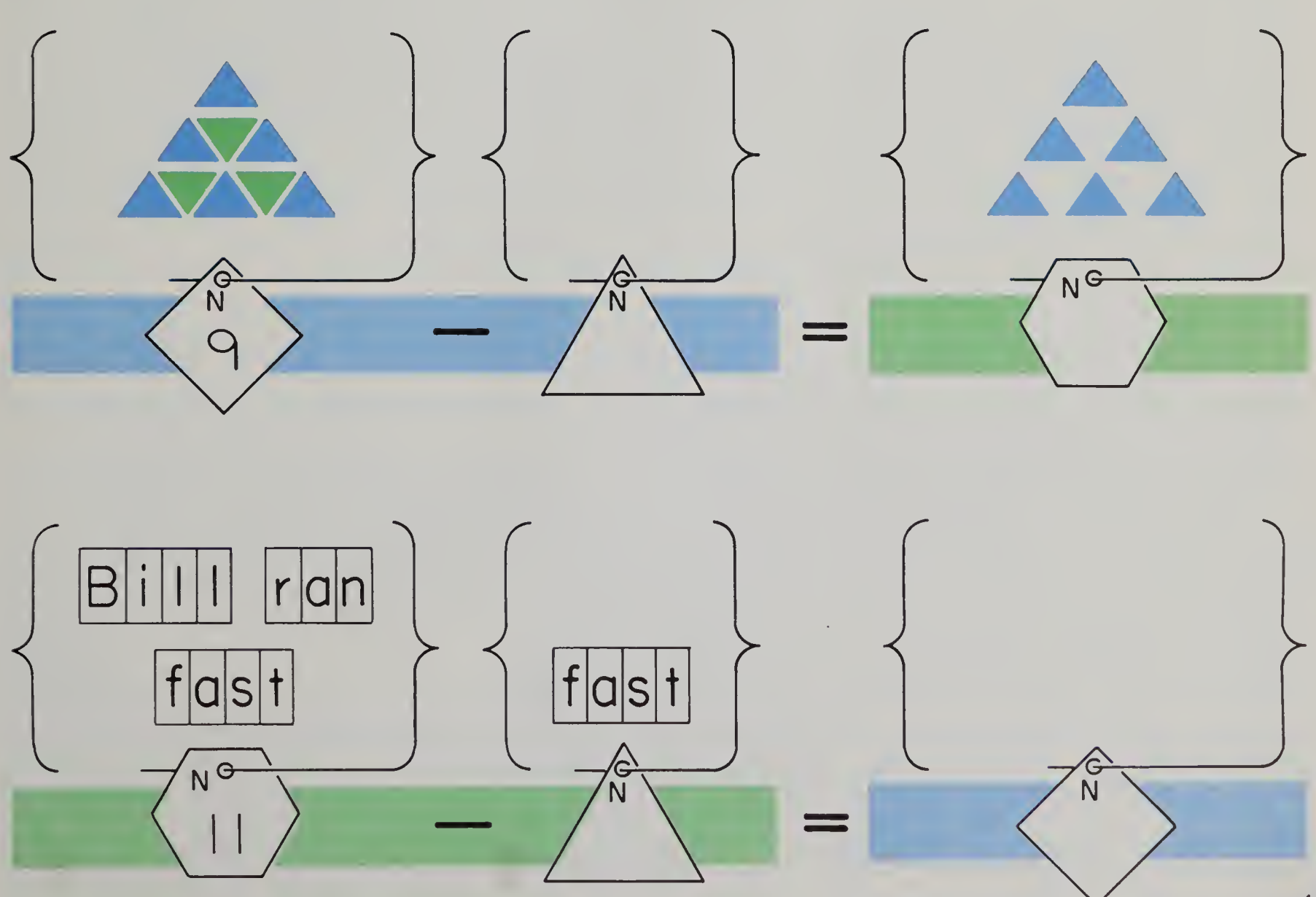
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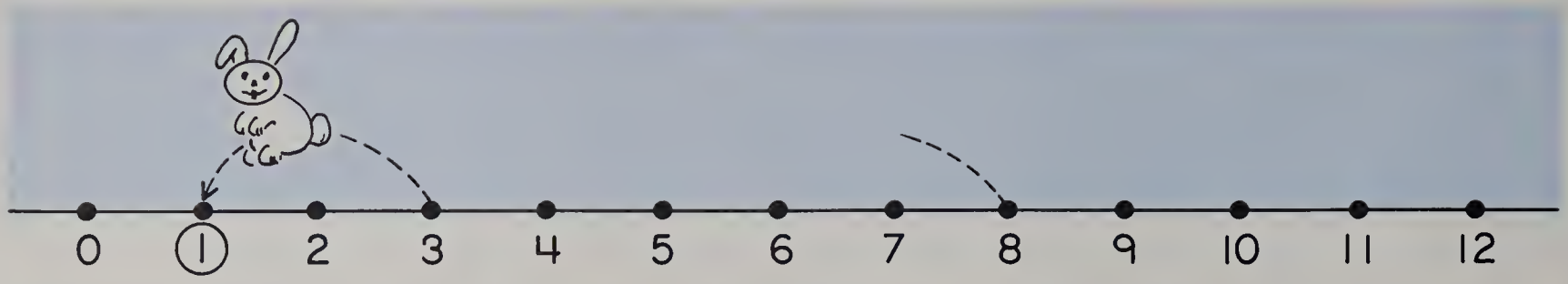
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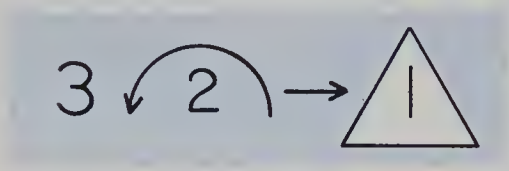
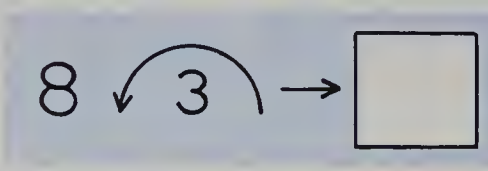
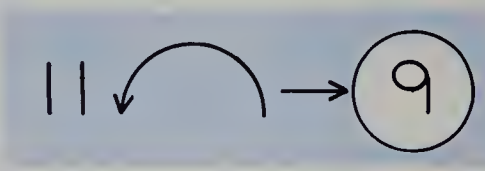
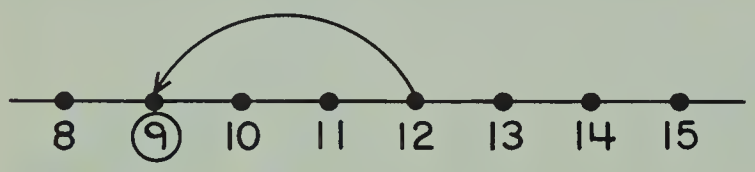
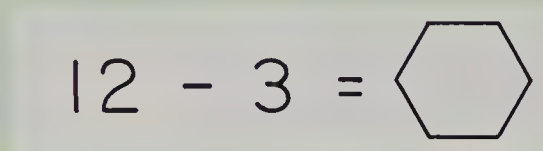

3 2 1


8 3

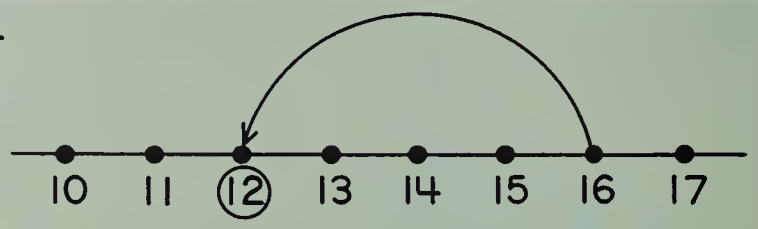

11 9

K


8 9 10 11 12 13 14 15

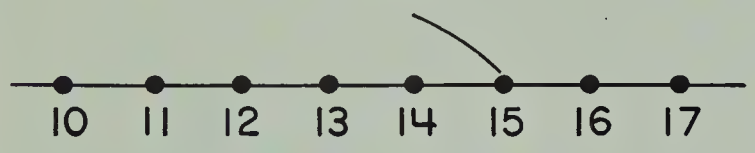

12 - 3 =

L


10 11 12 13 14 15 16 17

16 - = 12

M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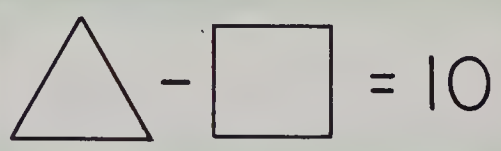
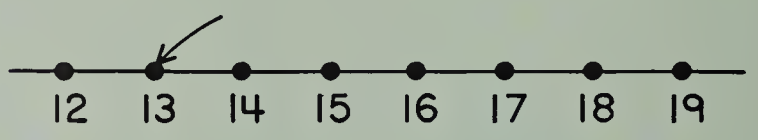

- = 10

N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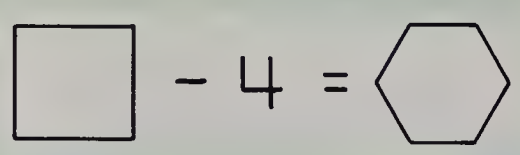
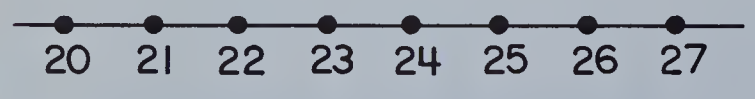
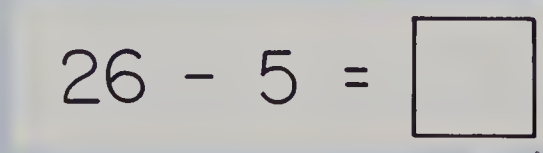
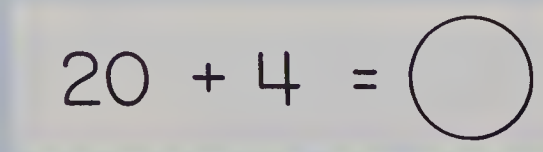

- 4 =

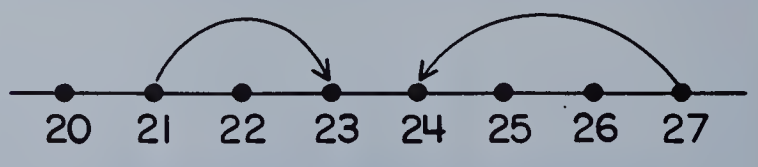
O

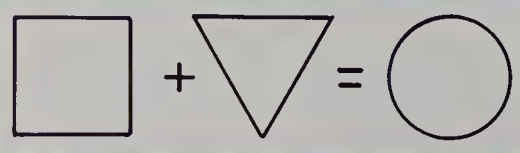

20 21 22 23 24 25 26 27

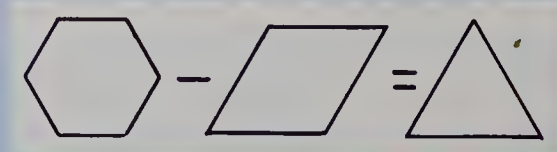

26 - 5 =


20 + 4 =

P


20 21 22 23 24 25 26 27


+ =


- =

1 + 0

2 + 0

(3 + 0)

4 + 0

3 + 1

(3 + 2)

3 + 3

six

I

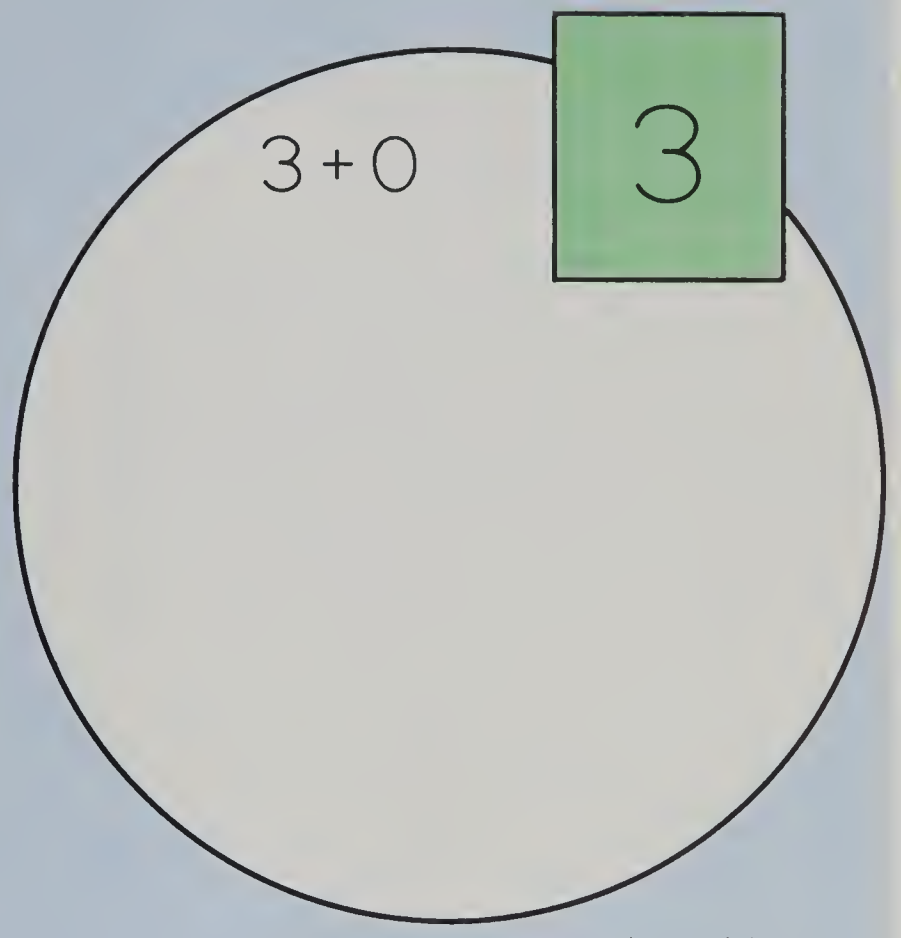
1 + 2 + 1

1 + 2 + 2

1 + 2 + 3

two

II



4 + 1

three

III

five

2 + 1

0 + 1

0 + 2

0 + 3

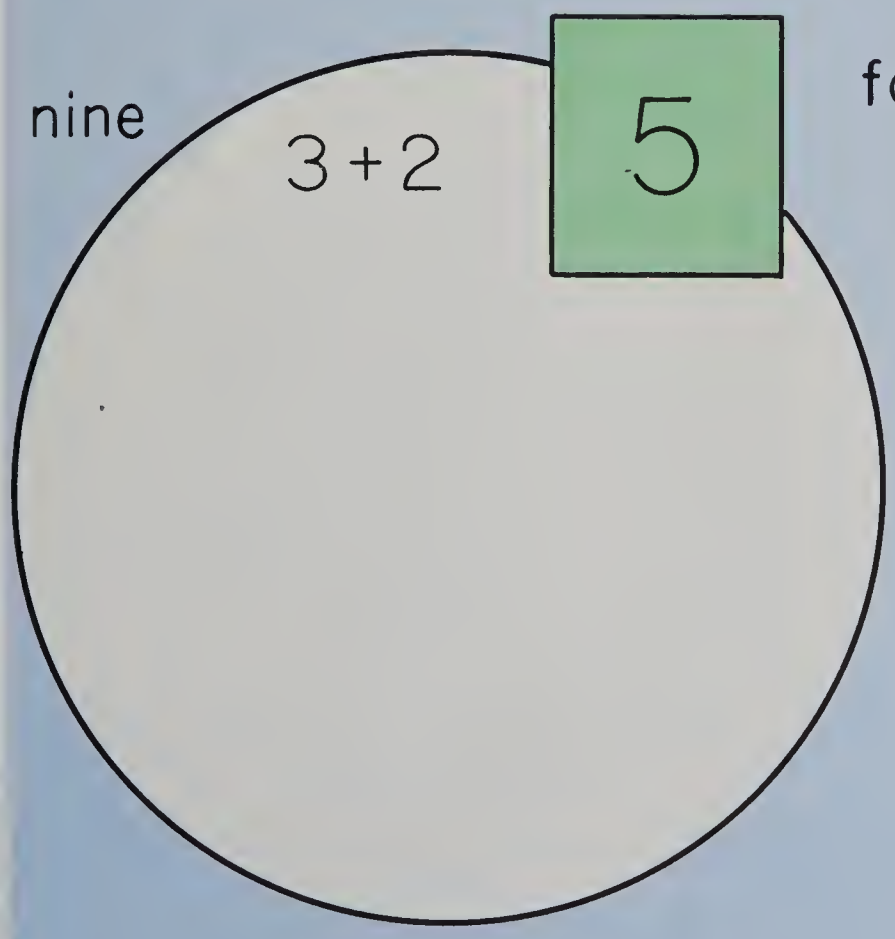
0 + 4

eight

IV

seven

1 + 4



four

0 + 1 + 1

1 + 1 + 1

2 + 1 + 1

V

1 + 2

ten

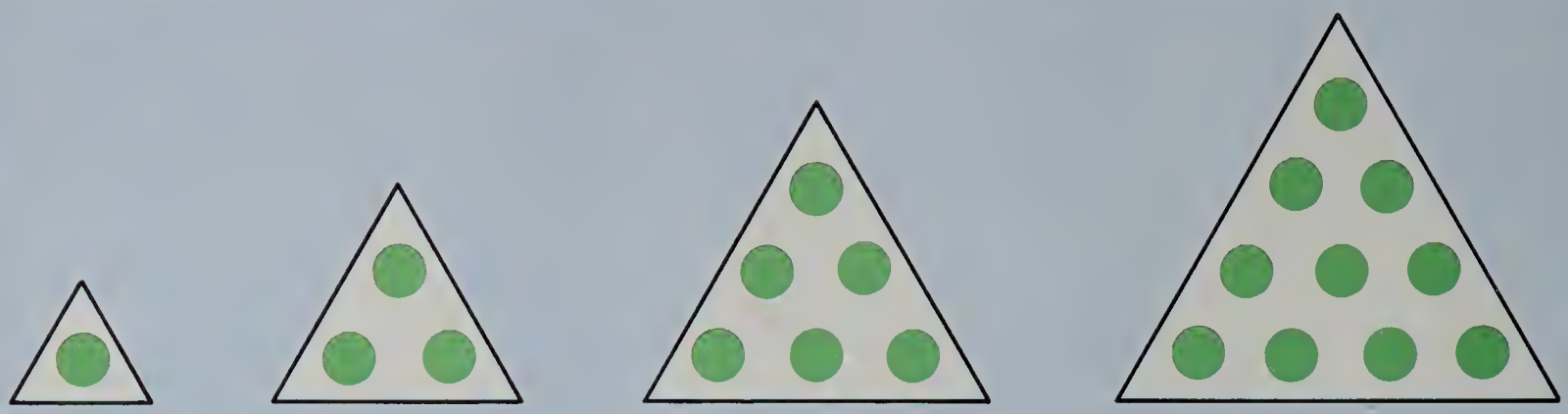
1 + 3

2 + 3

3 + 3

one

VI

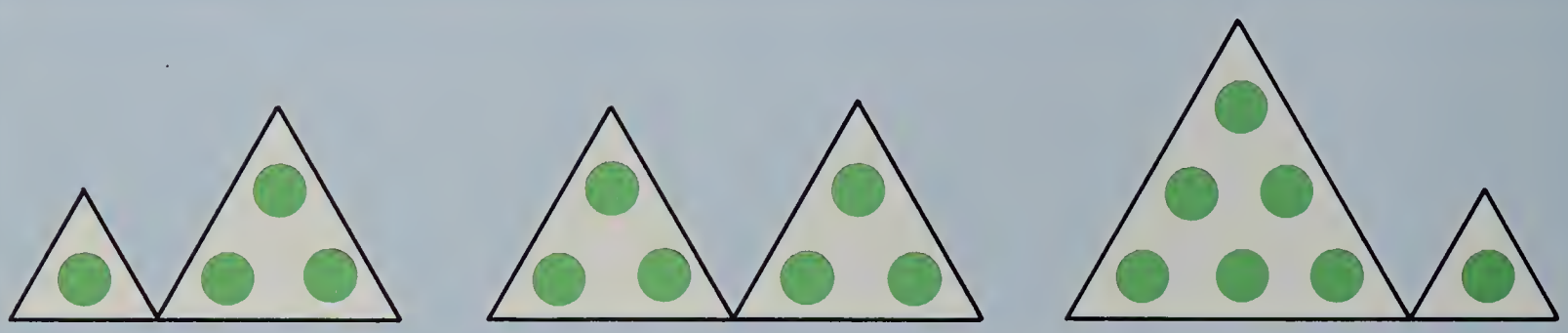


A. 1

B. 3

C. _____

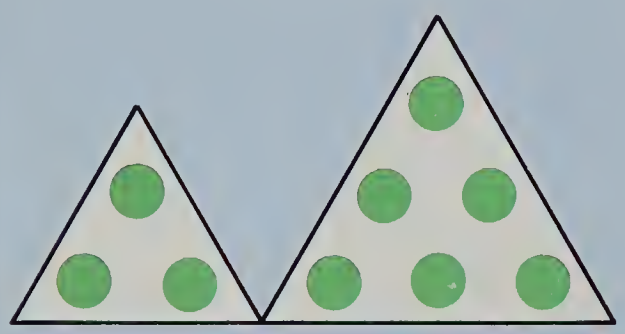
D. _____



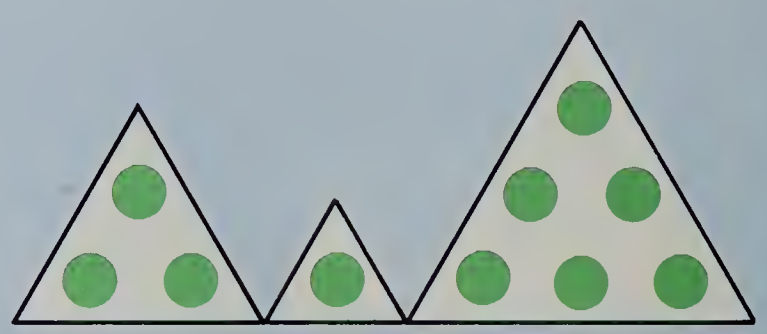
E. 1 + 3 = 4

F. 3 + _____ = _____

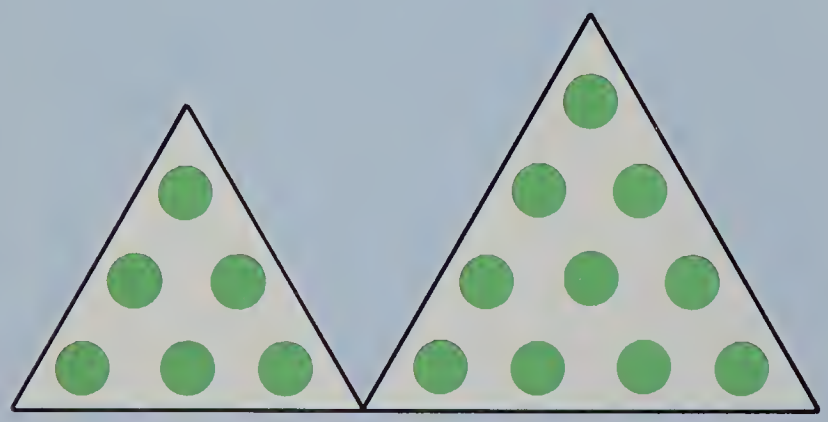
G. _____ + _____ = _____



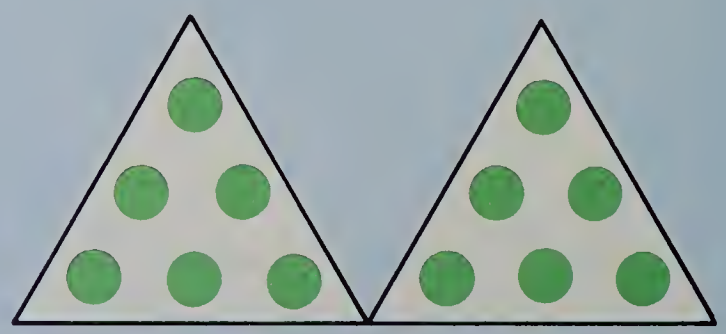
H. _____ + _____ = _____



I. _____ + _____ = _____ .



J. _____ + _____ = _____



K. _____ + _____ = _____

I

DOGS
CAN
RUN

14

FAST

10

4

+

=

II

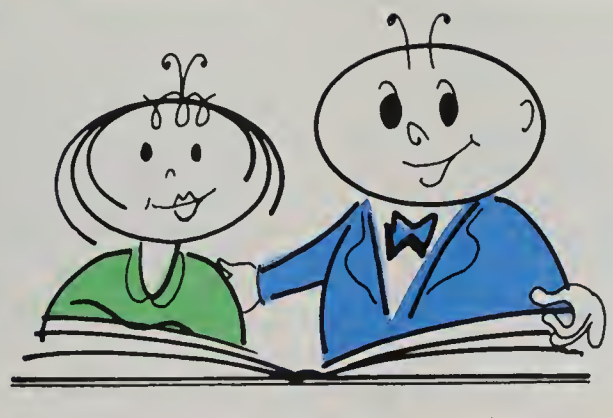
IT

12

IS A
NICE
DAY

+

=



III

SHE

IS MY
MOTHER

+

=

IV

I

PLAY
WITH
ED

+

=

0	1	2	3	4

2		4	5	6

1	2	3		5

5	4		2	1

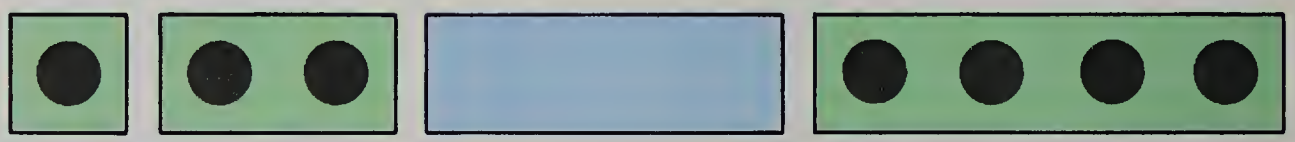
0	2		6	8

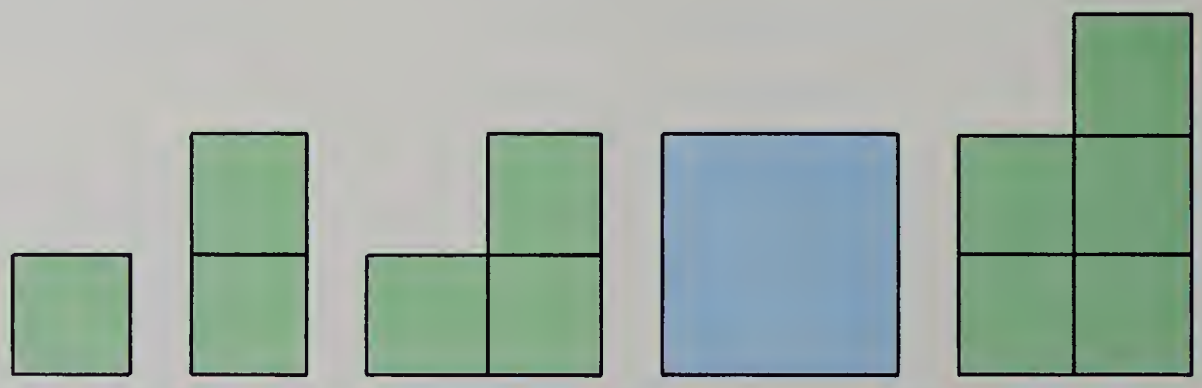
1		5	7	9

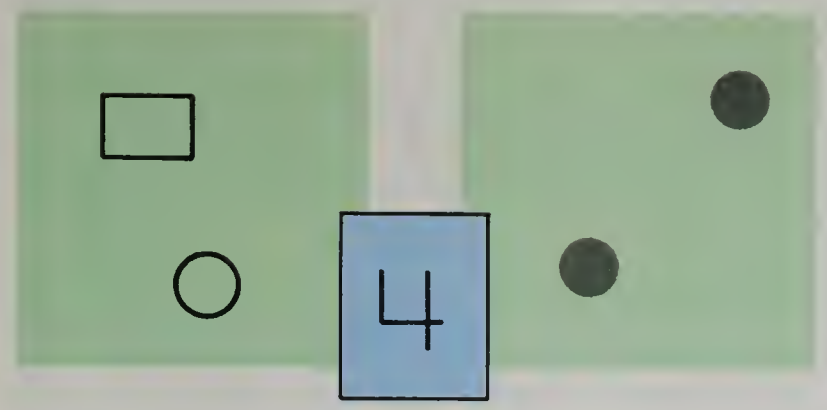
0	3	6		12

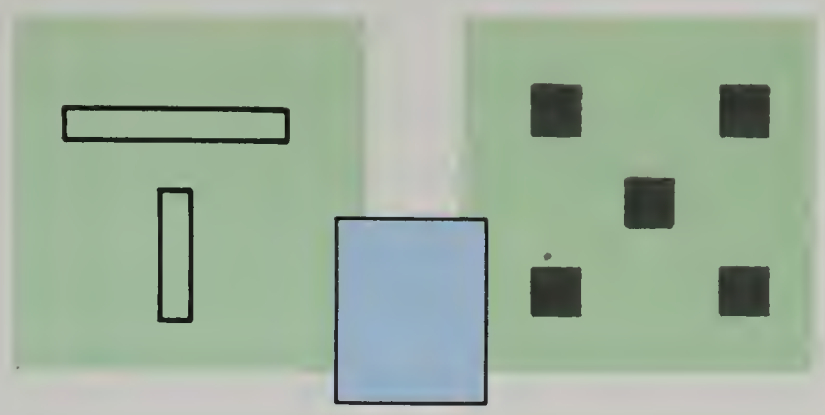
6	7		9	10

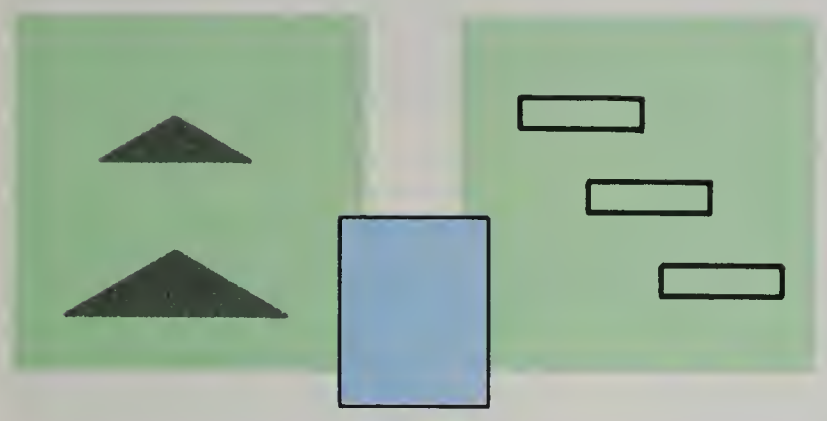
16
17
18
20

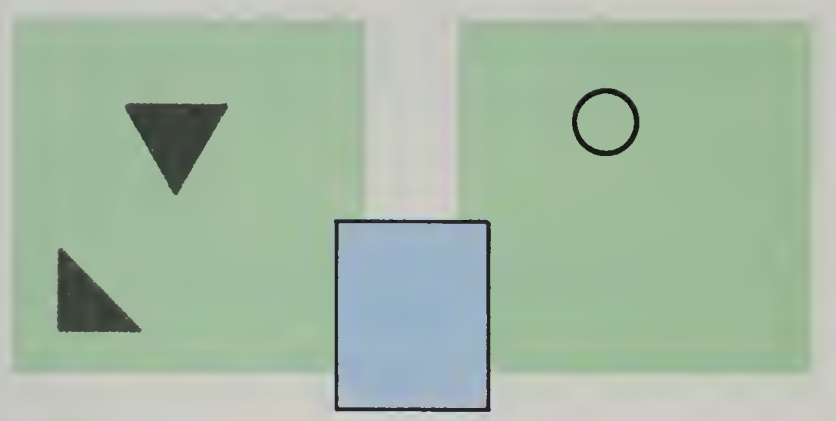


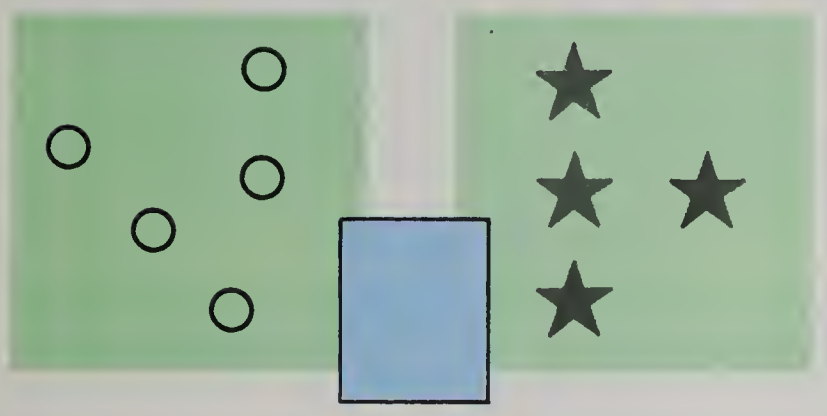


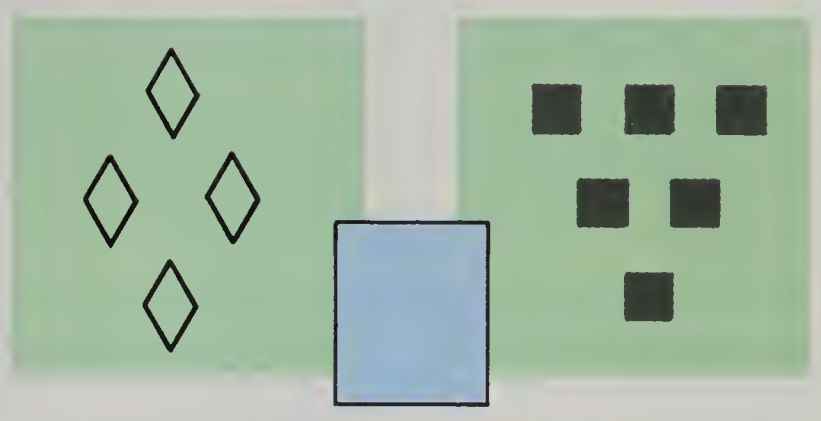

4

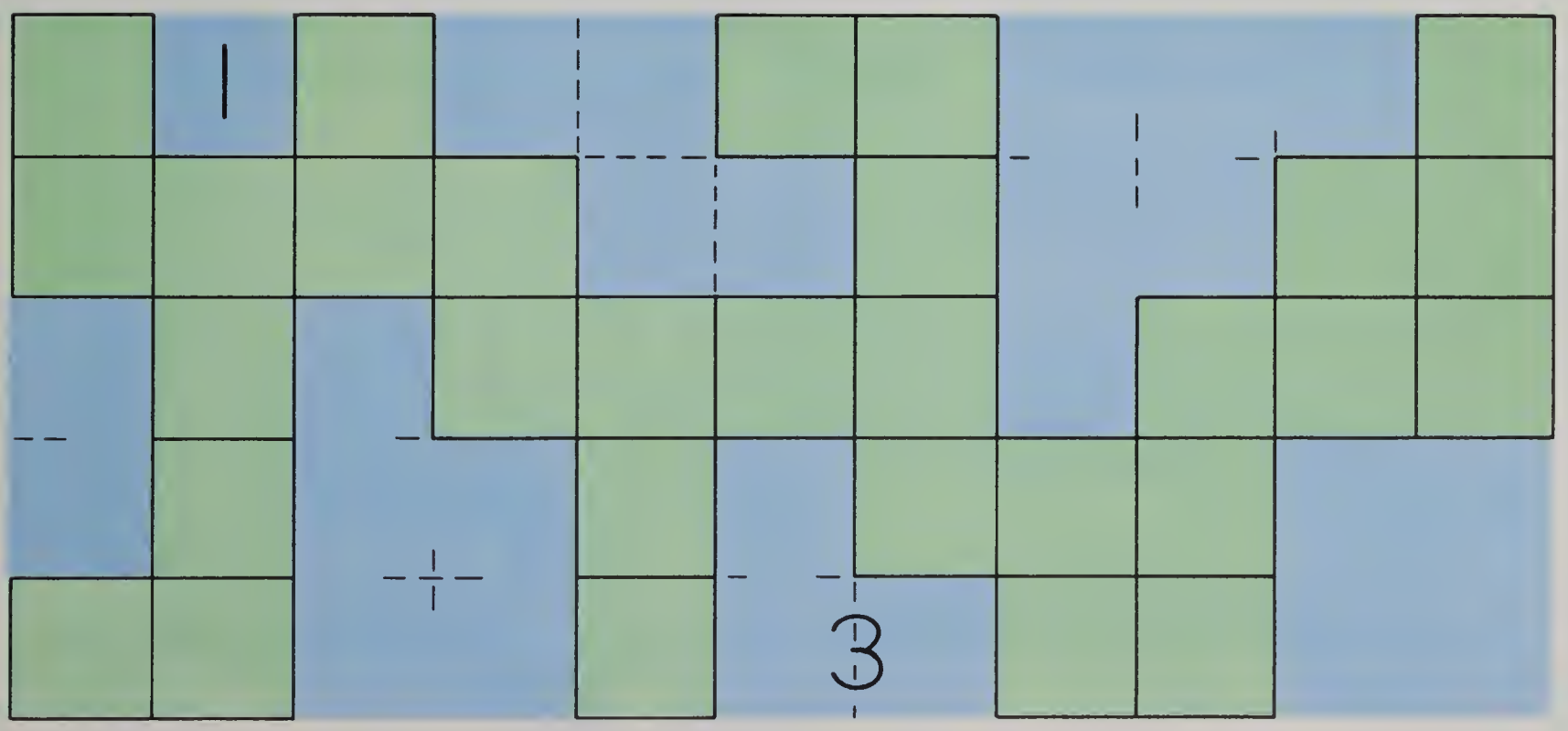


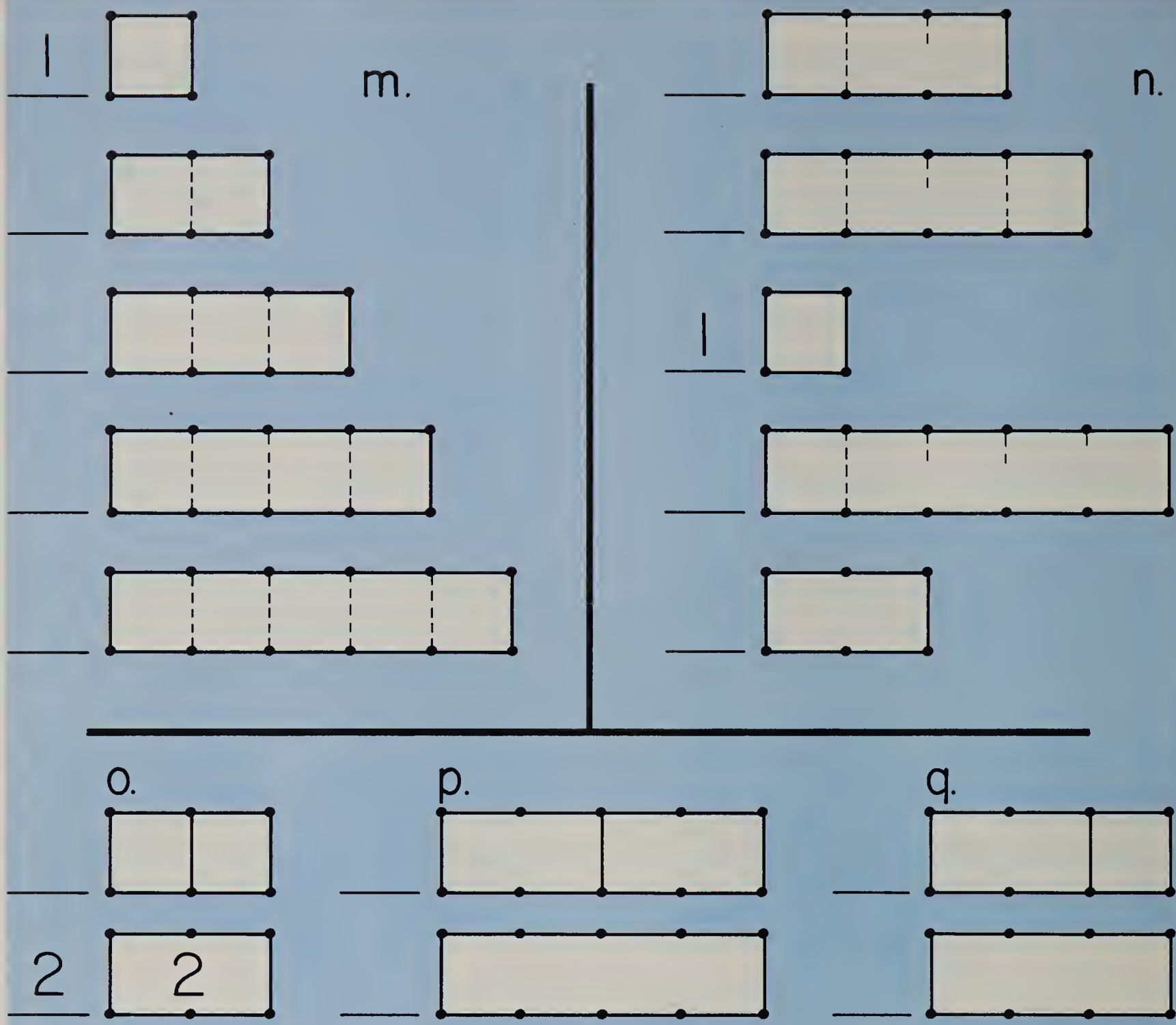




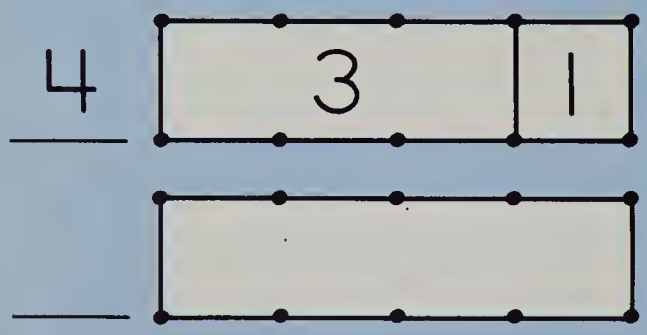





1
3



r.



s.

a.

4

b.

6

c.

d.

8

4

4

e.

f.

g.

coins

¢

3

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coins

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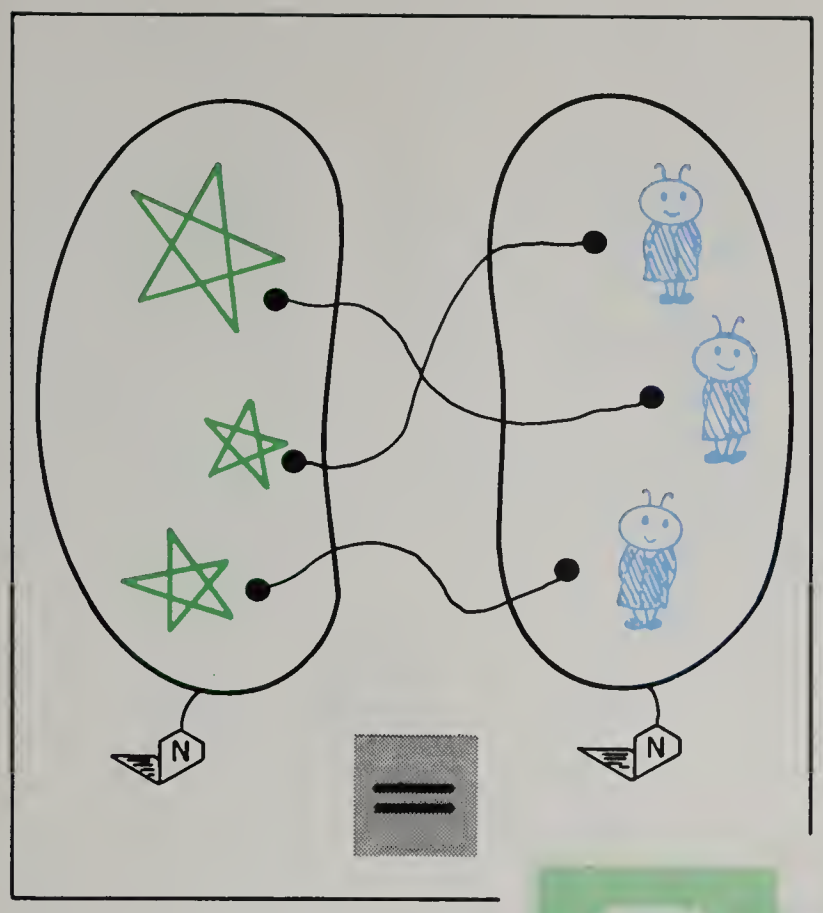
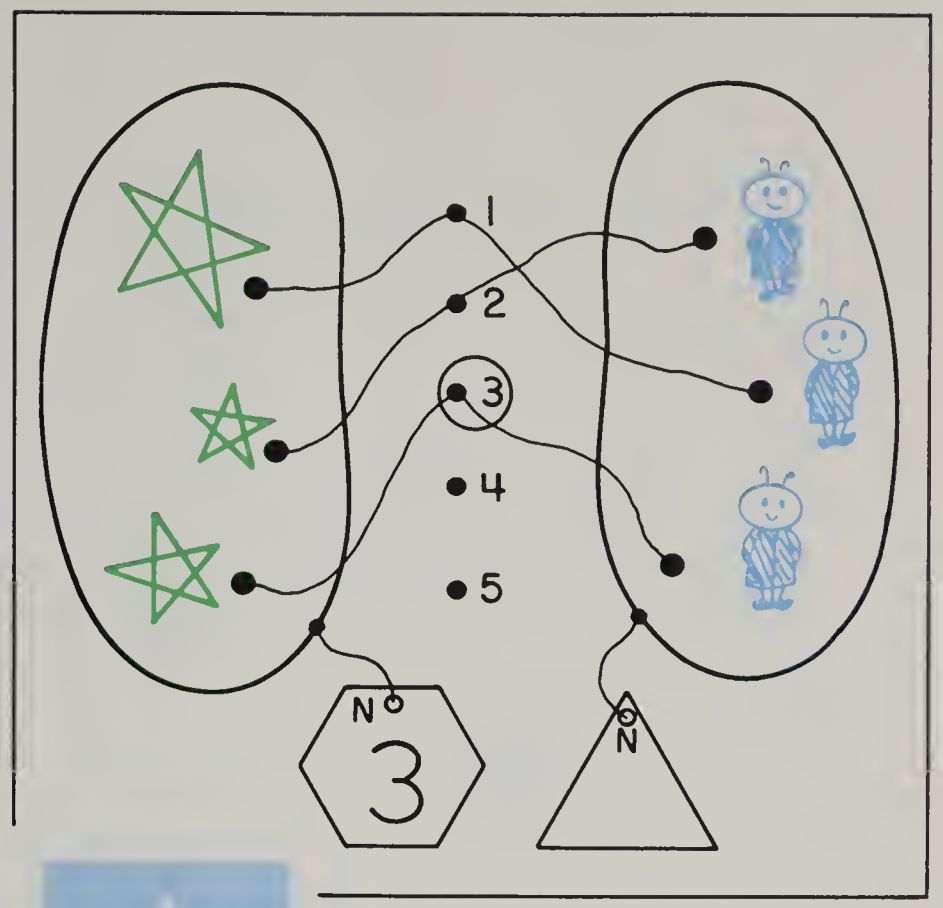
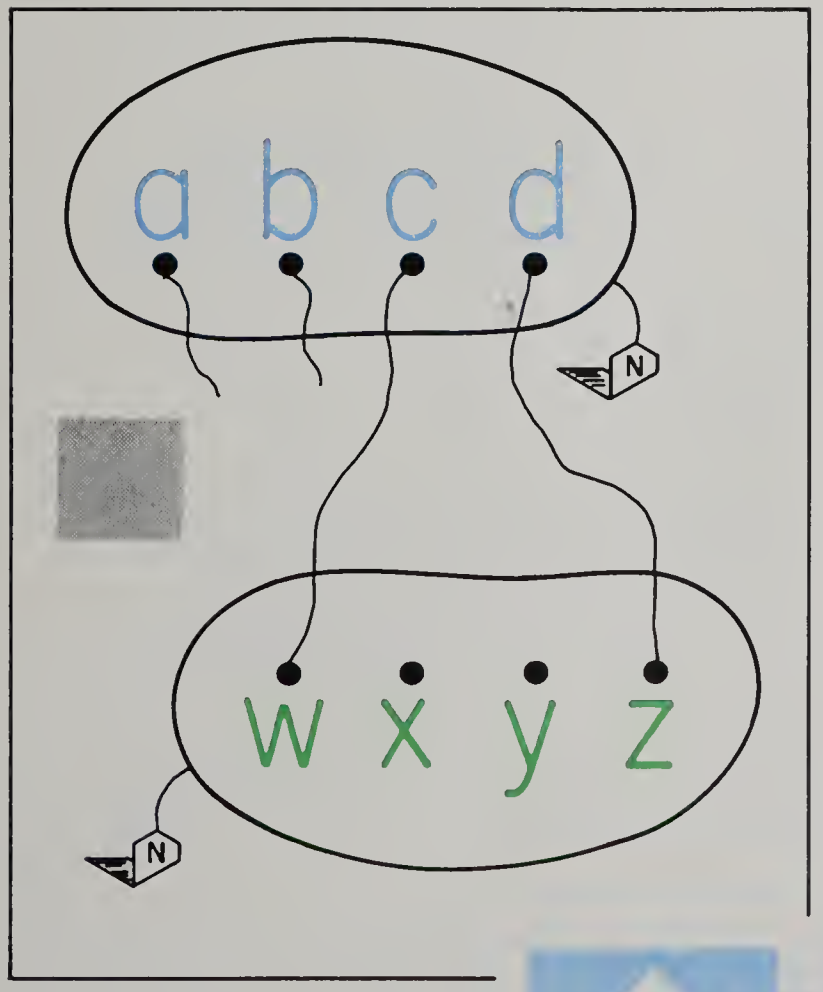
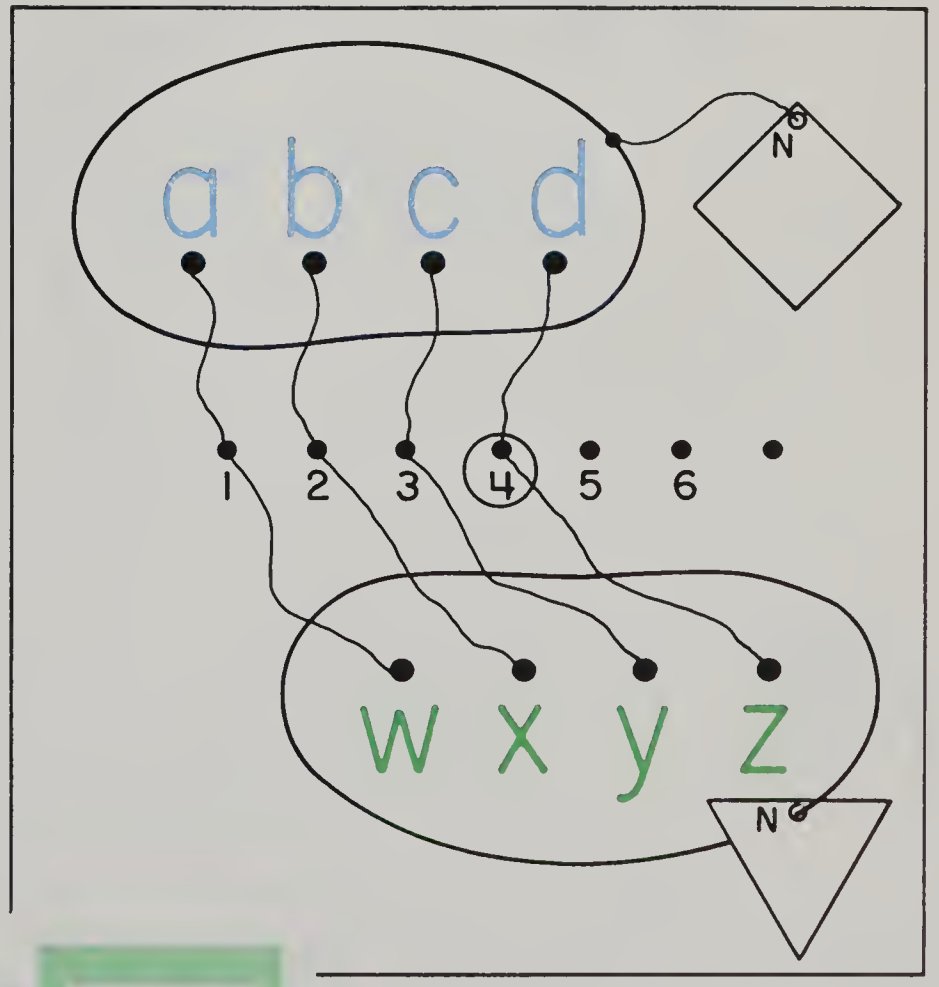
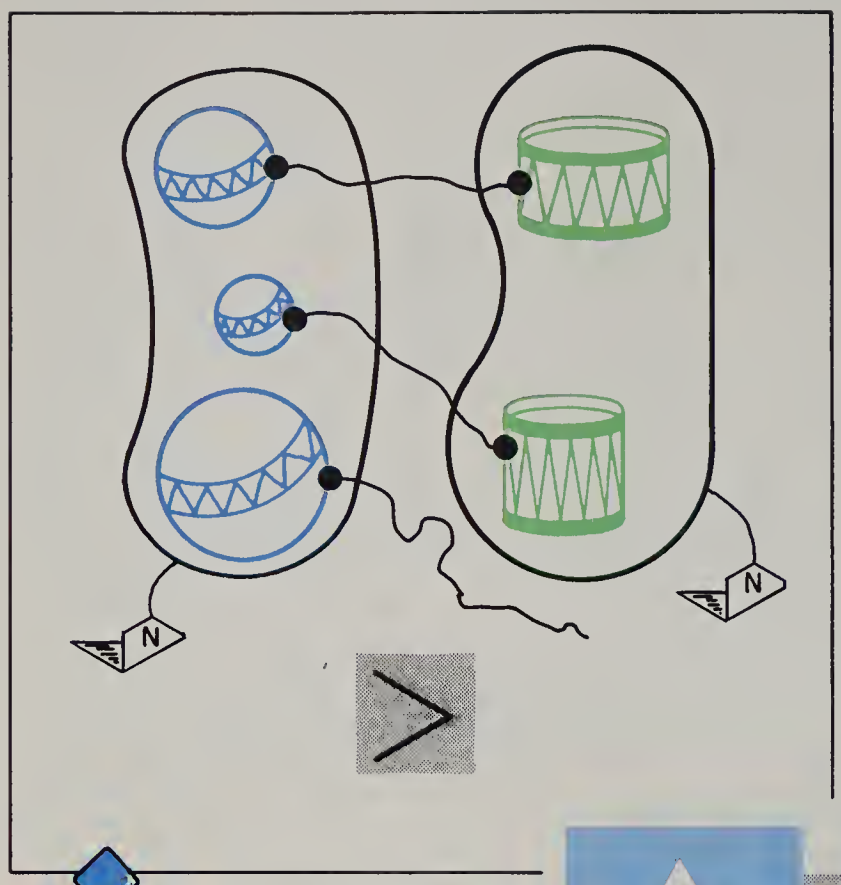

N
N


1
2
3
4
5
N
3
N

3


a b c d
N
w x y z
N


a b c d
N
1 2 3 4 5 6
w x y z
N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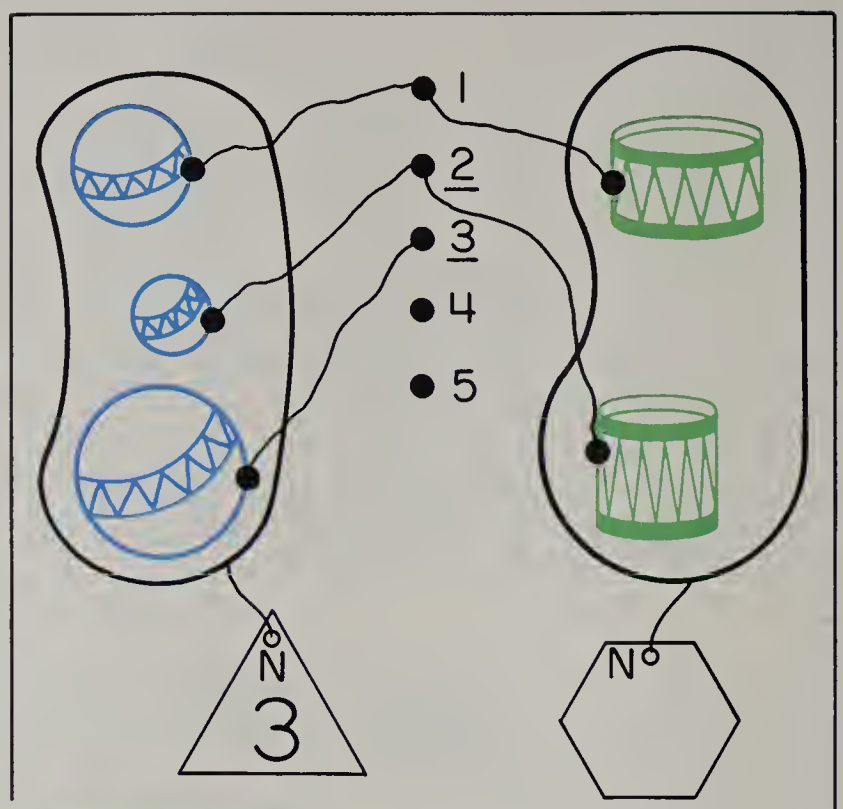
N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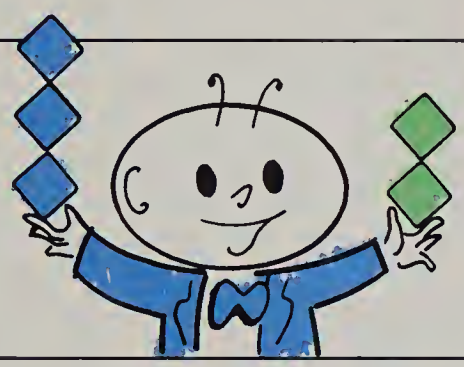

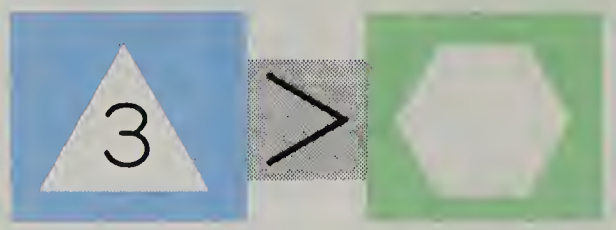
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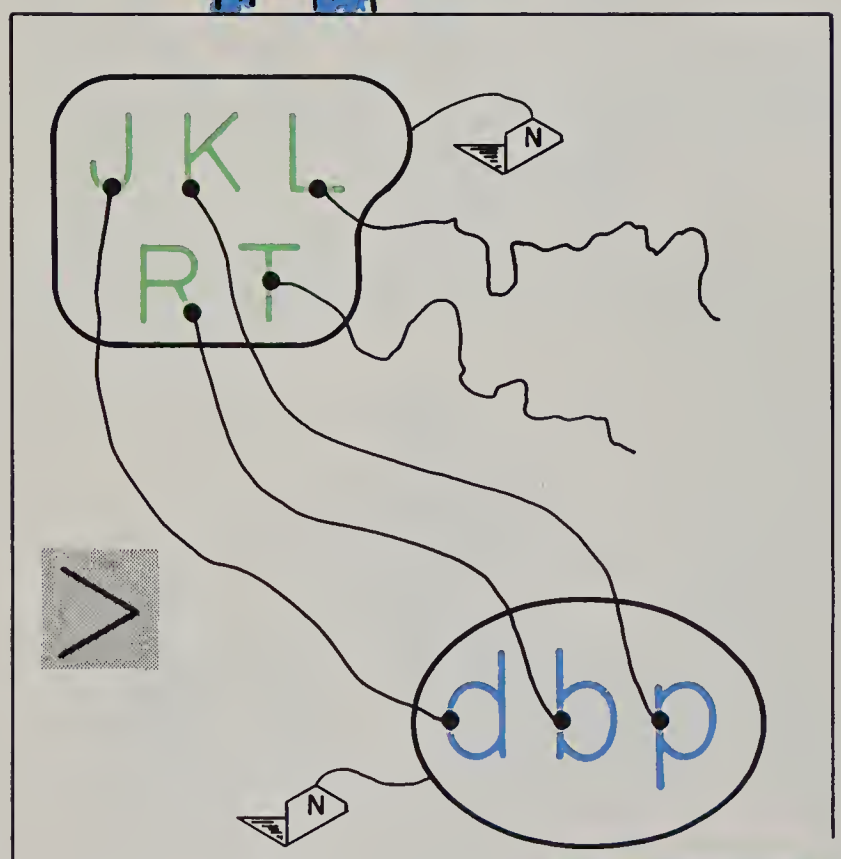
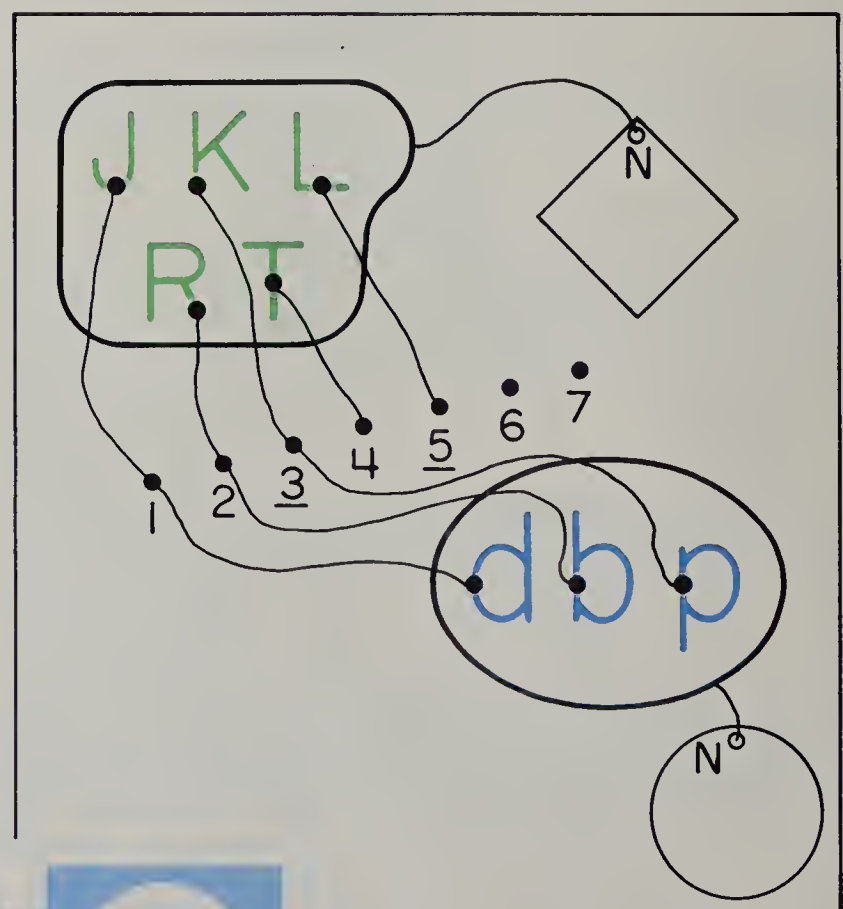

J K L
R T
N
d b p
N


J K L
R T
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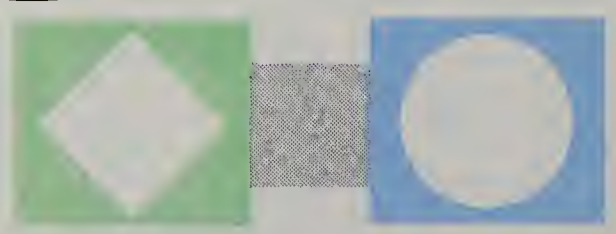
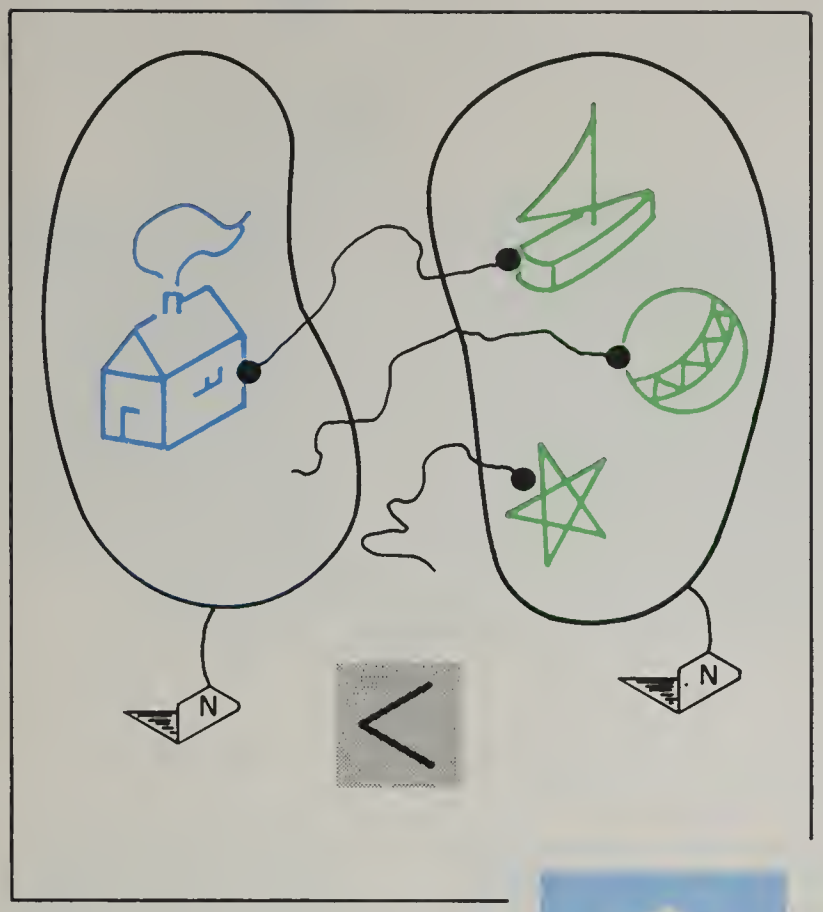
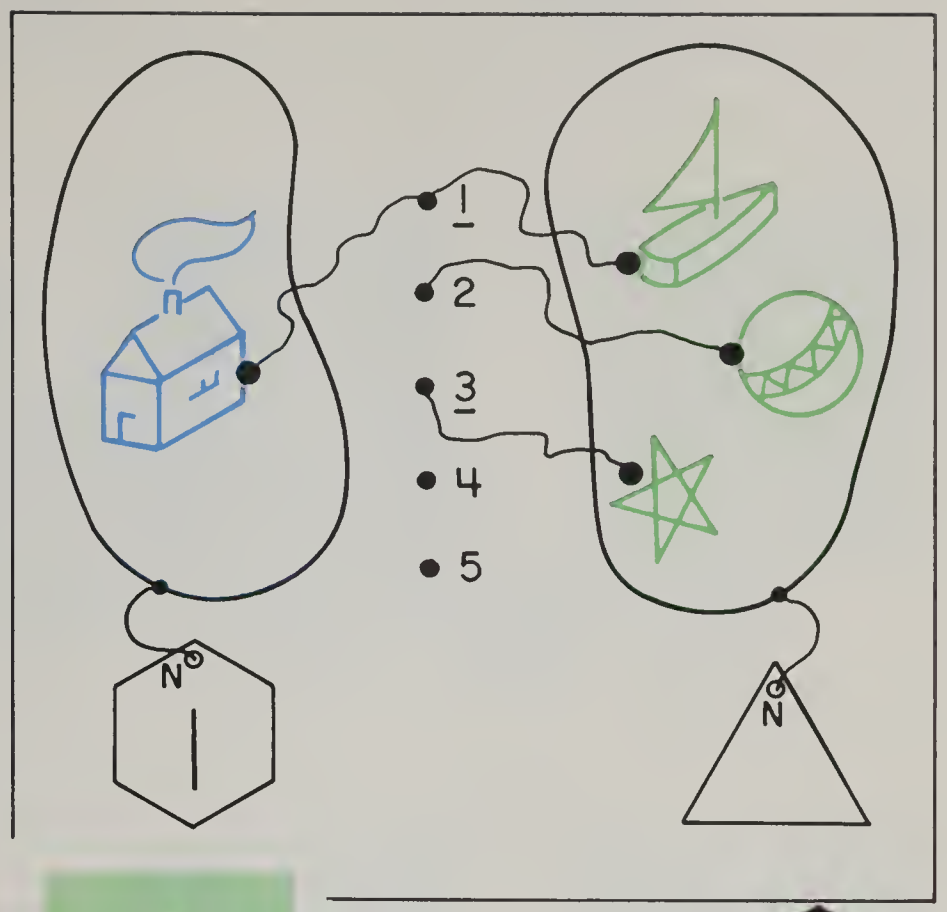
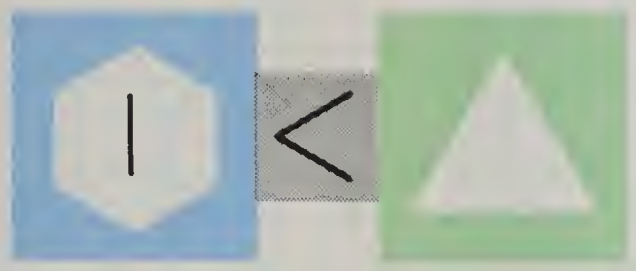
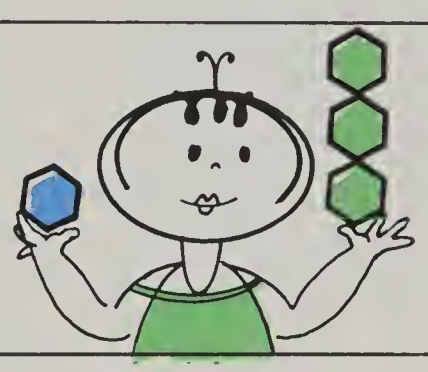
7
d b p
N

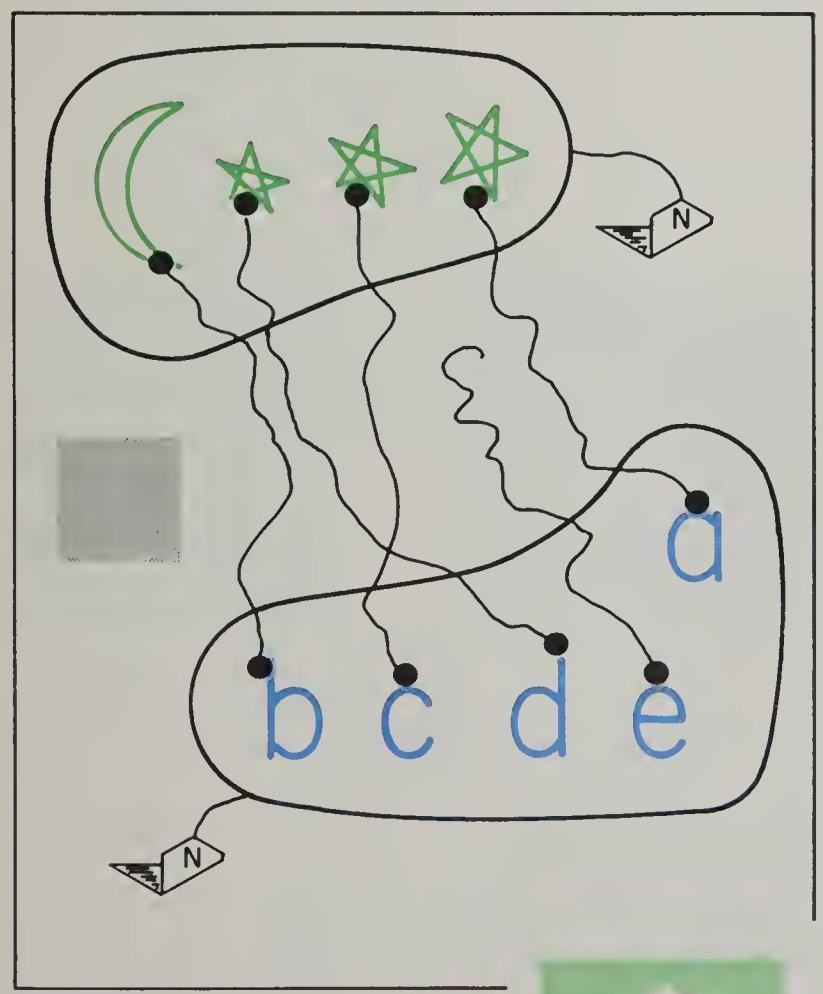


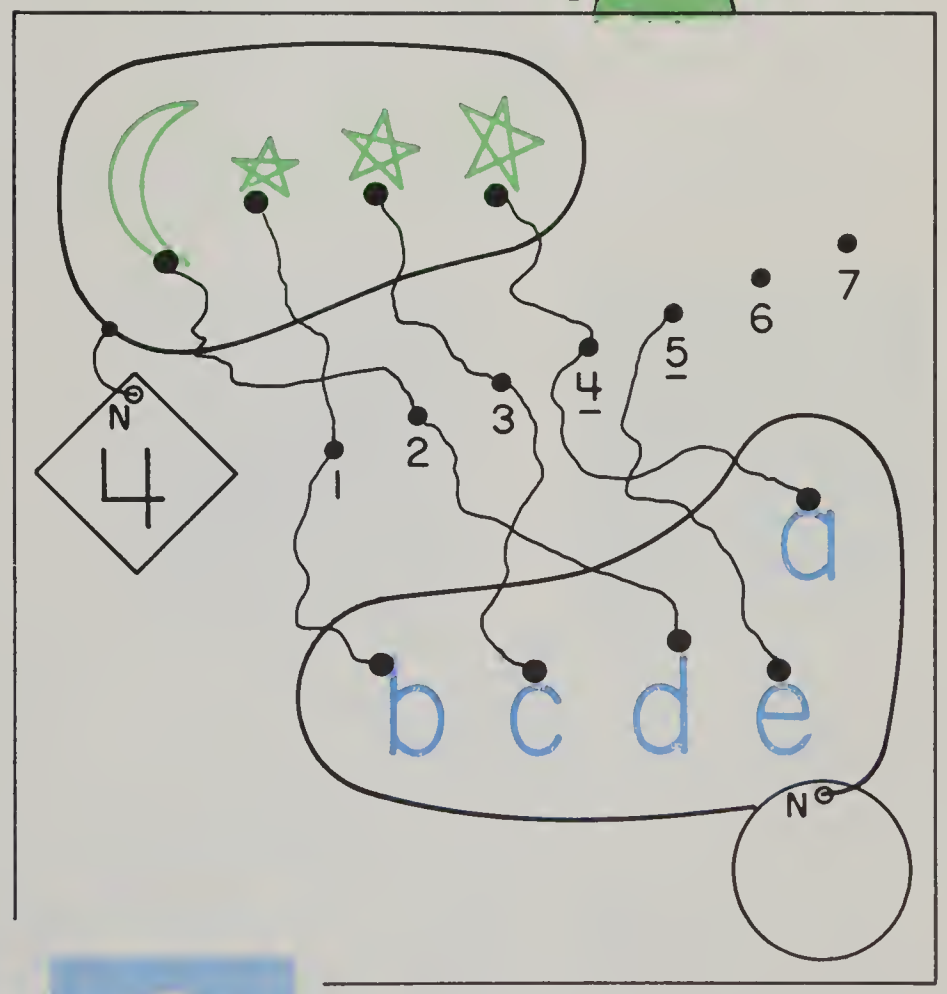

N
N


1
2
3
4
5
N
N






N
a
b c d e
N


N
4
1
2
3
4
5
6
7
a
b c d e
N

1 < 2

3 > 2

2 = 2

A B C

D E F G

3 < 4

H I J K L M N

O P Q R

S T U V W

X Y Z

M O T H E R

F A T H E R

THE BOY

RAN HOME

8

0

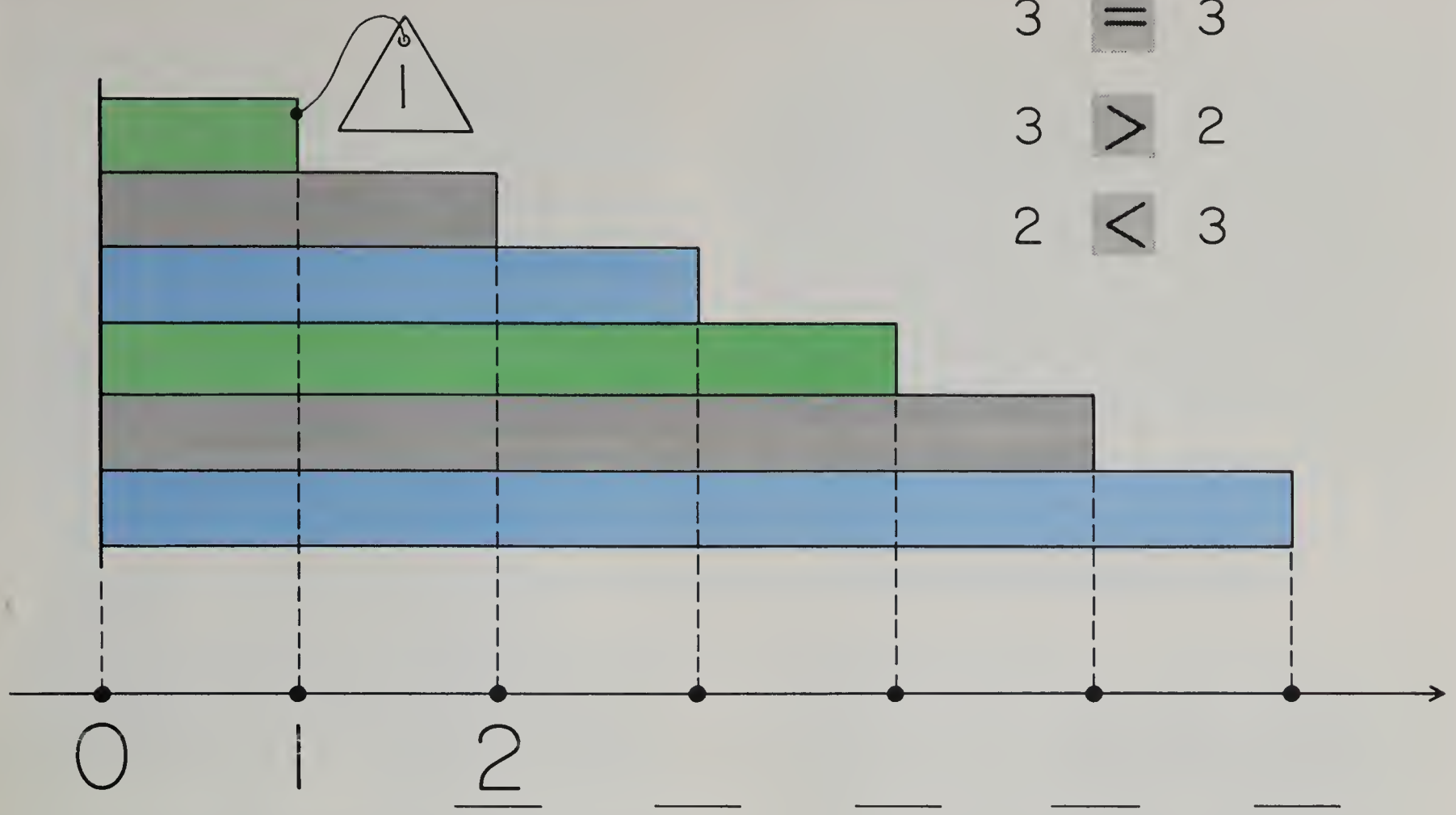
20

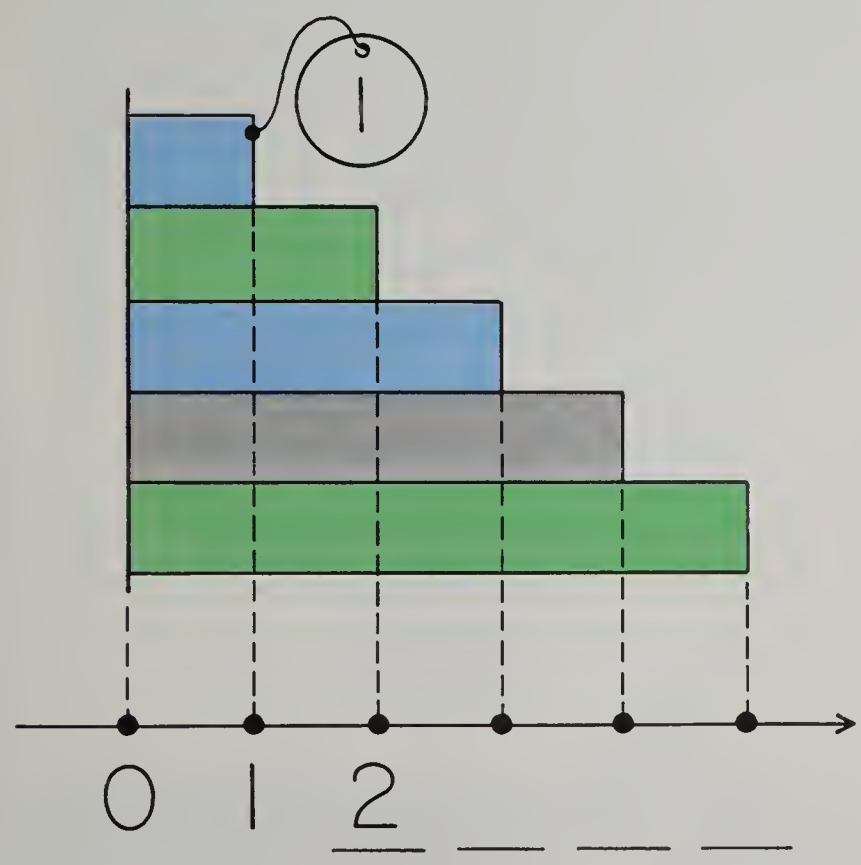
9 19

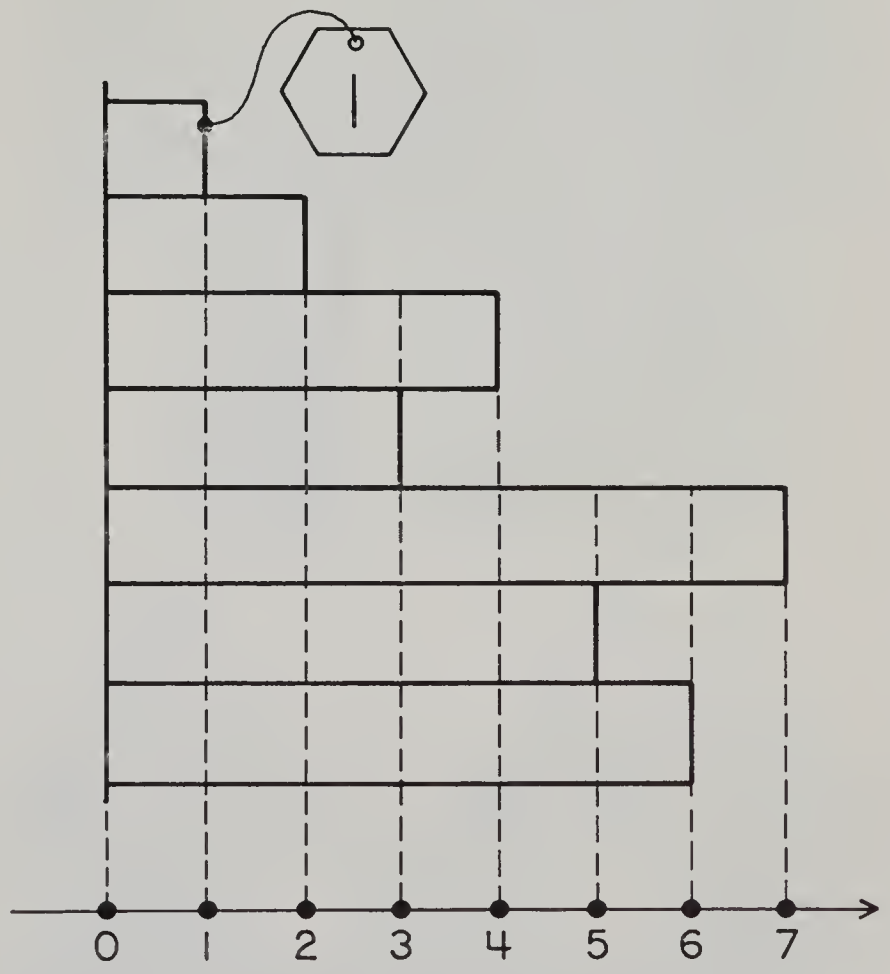
1 >

7 <

21 12





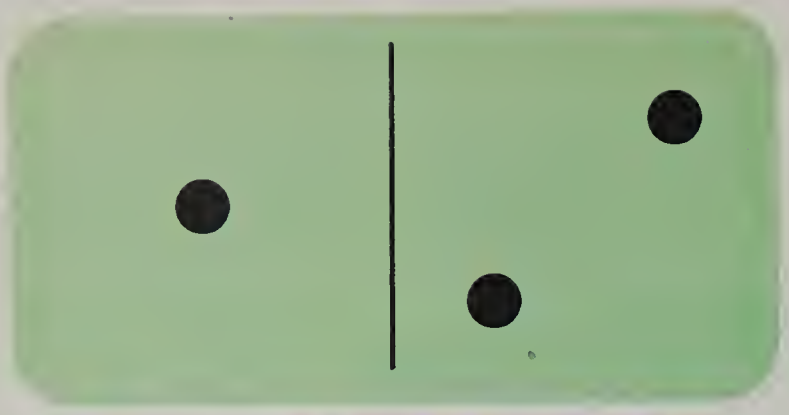


4 ▢ 2

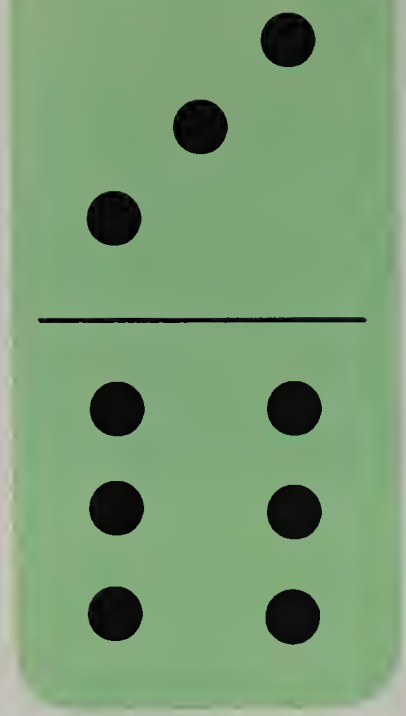
1 ▢ 3

5 > ▽

1 > ○



1 + 2 = 3



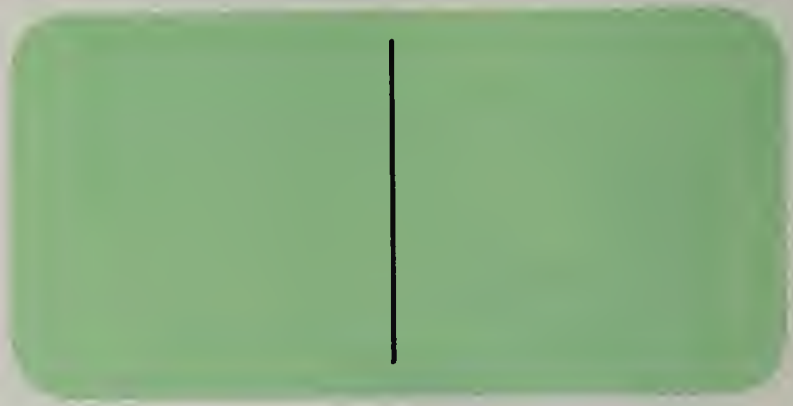
+ ___

___

___

+ 5

___



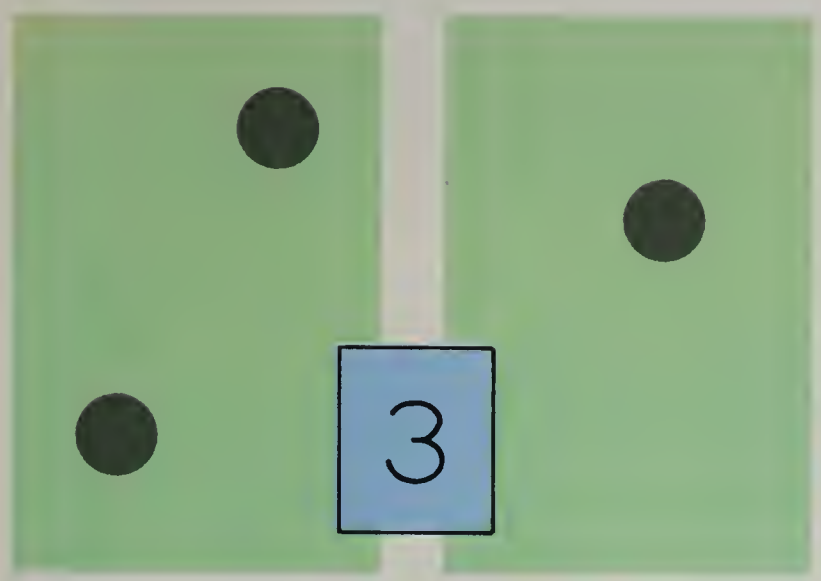
4 + 4 = ___

2 + 4 = ___

2 + 5 = ___

5 + 5 = ___

2	2	2	2
+ 0	+ 1	+ 2	+ 3
___	___	___	___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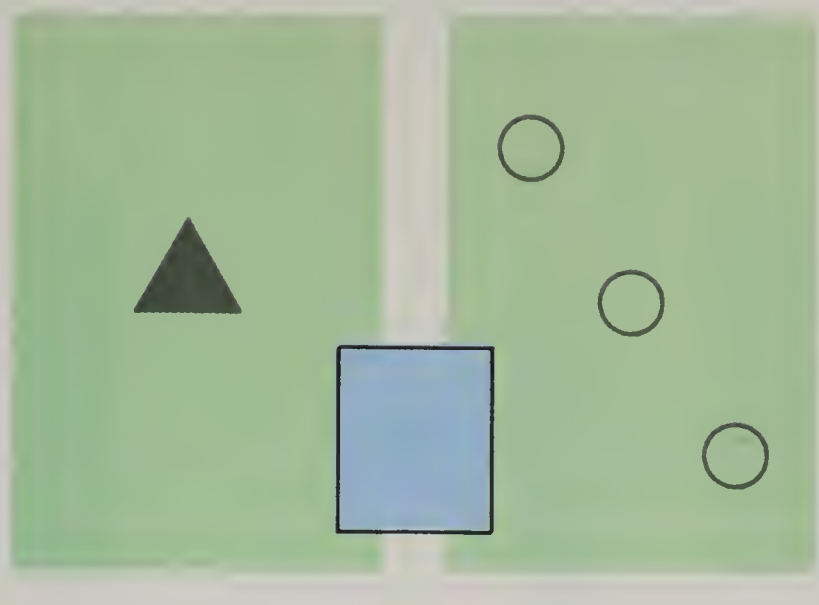
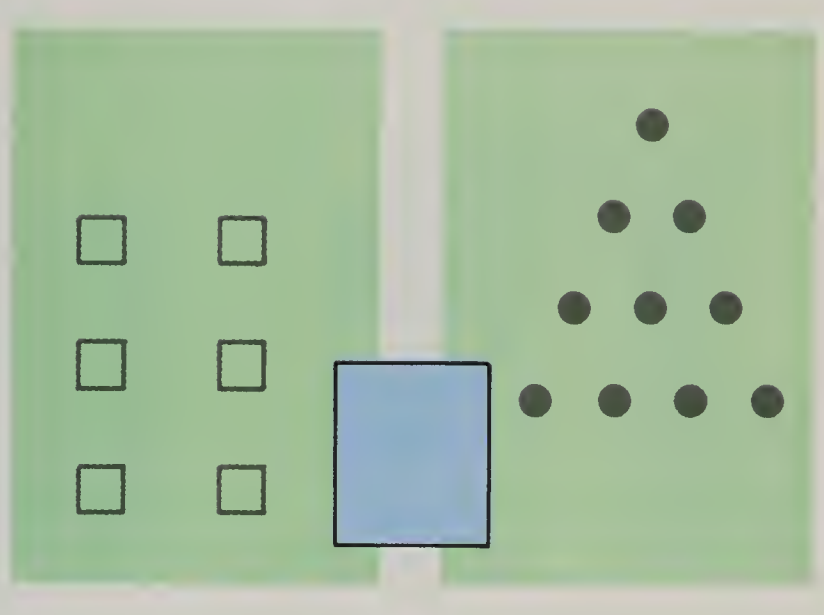
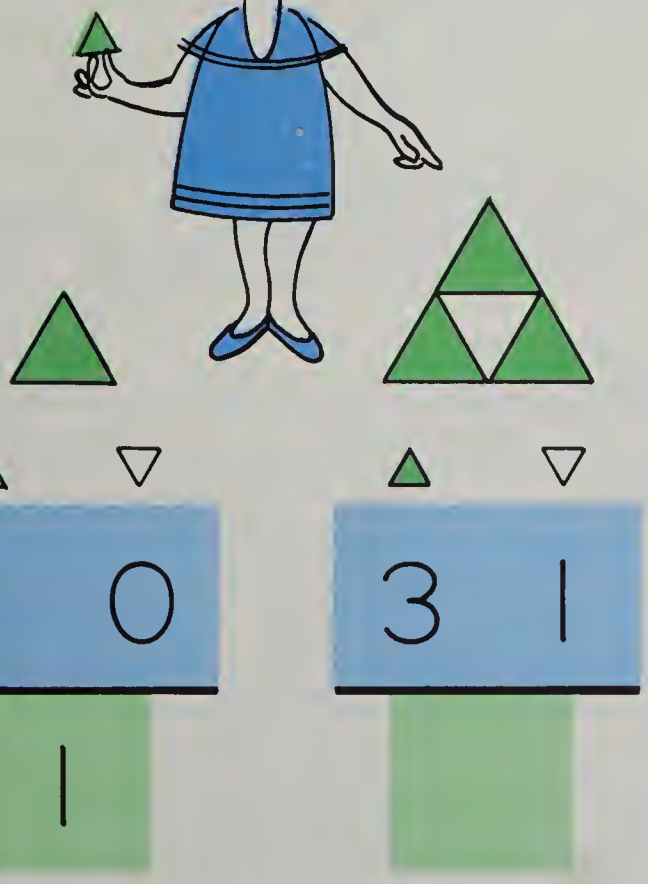





1 0
3 1
1

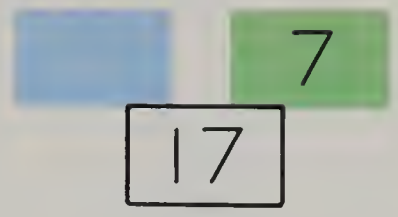
4 = 4 4 < 5 5 > 4

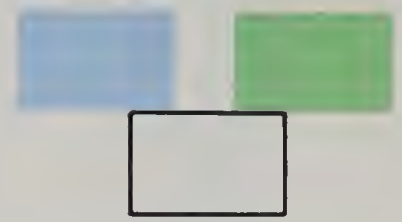
A B C D

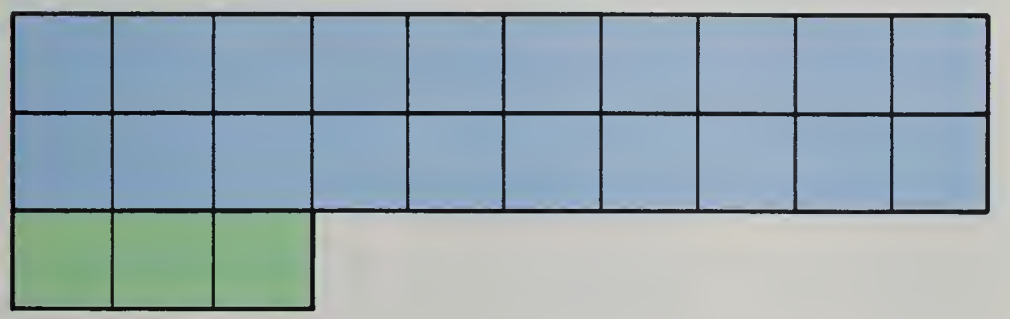
E F G

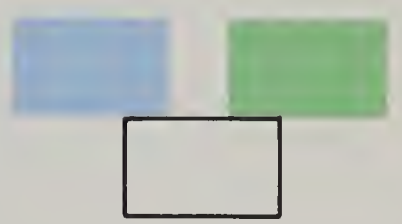
3 ▢ ⬡ △ ▢ 4 ○ ▢ ▽

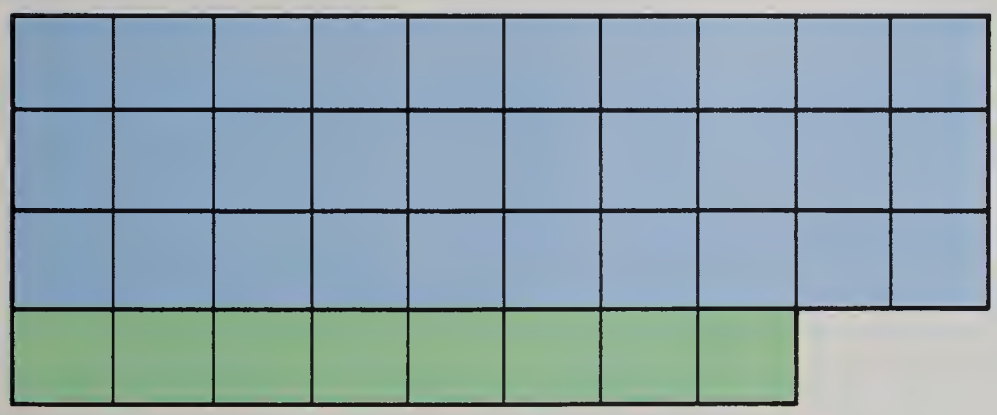
H I J K L

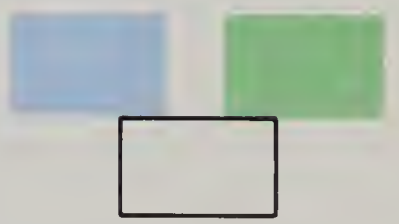

7
17

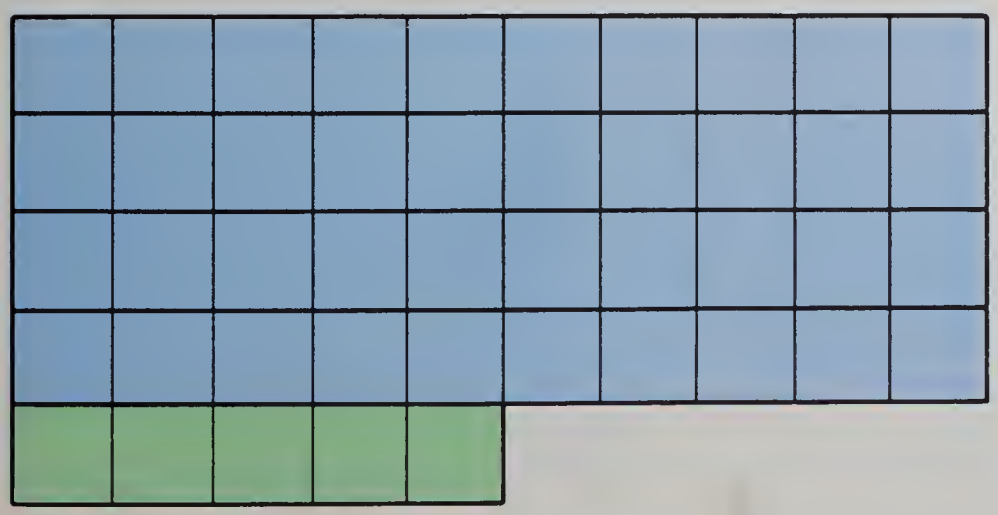


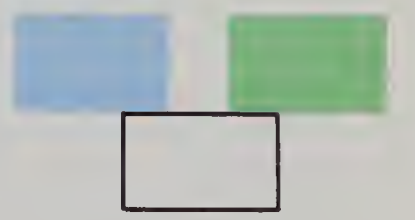






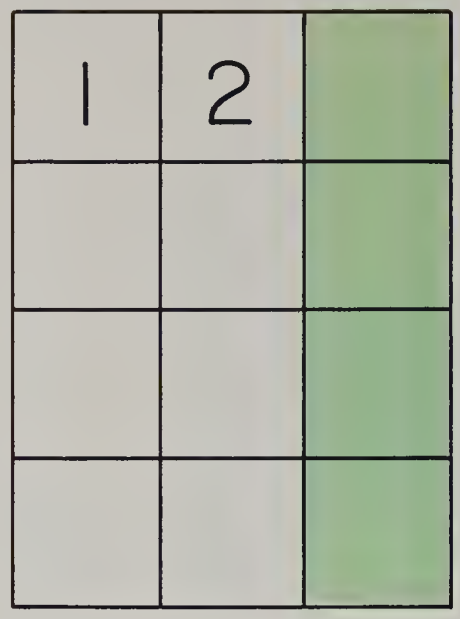






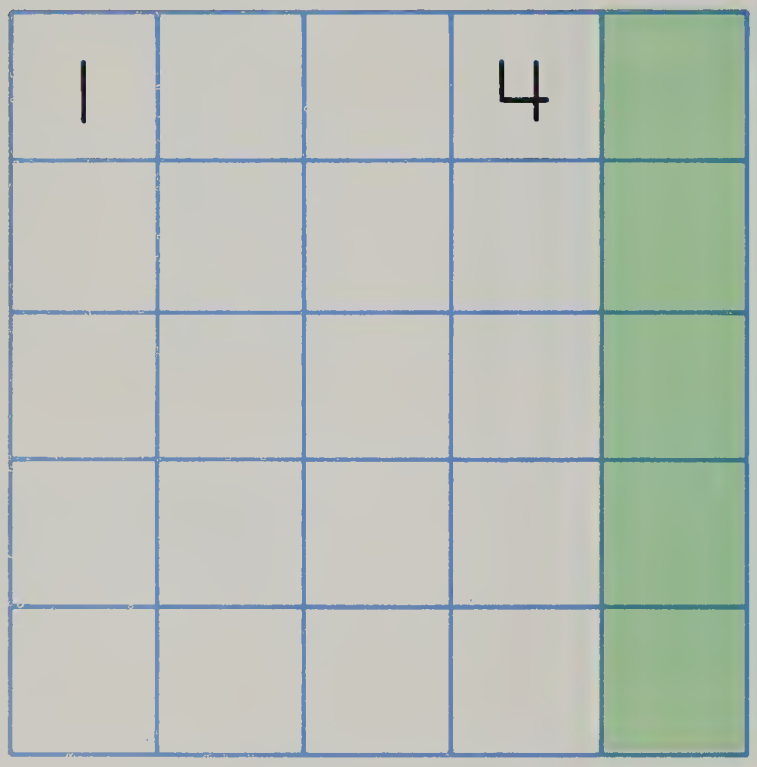
A.

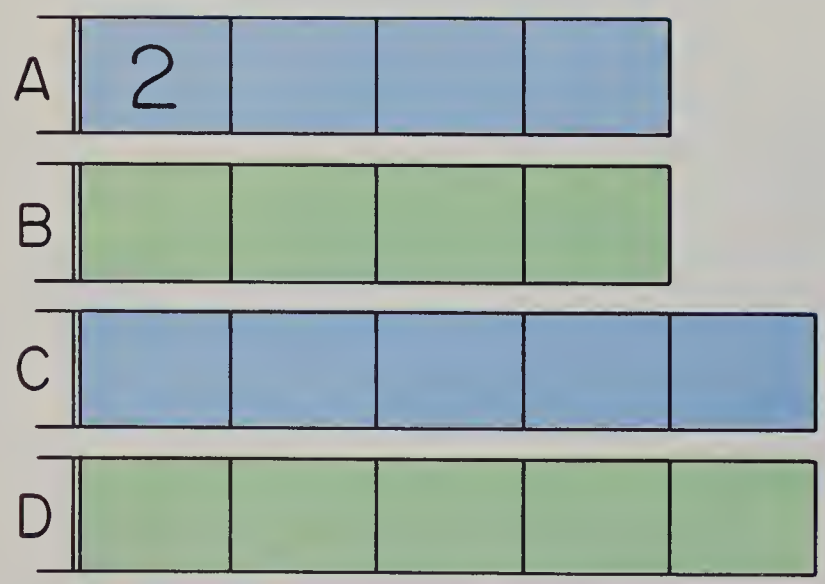
B.

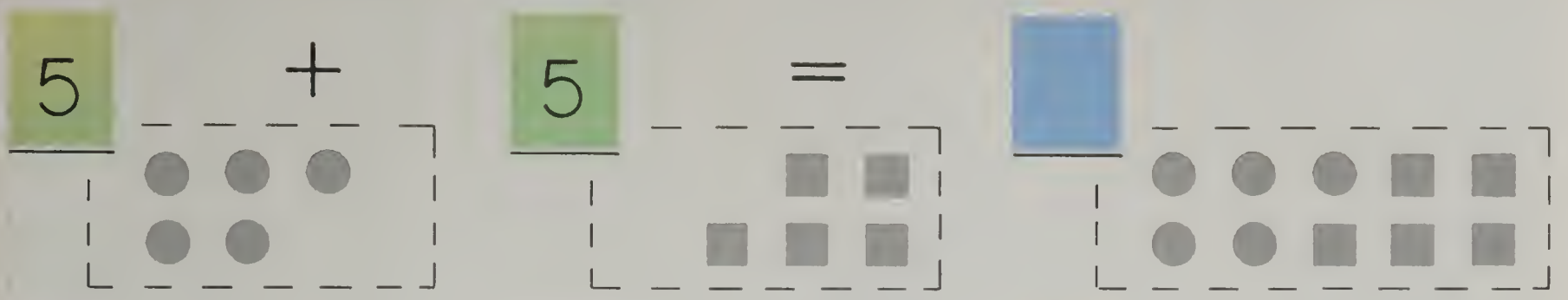


C.

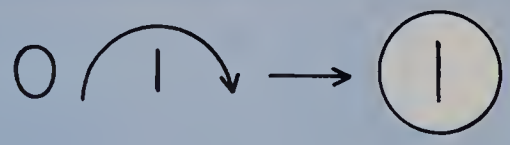
D.





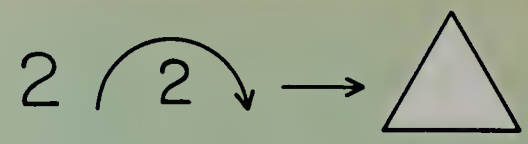

5 + 5 =
6 + 4 =
4 + =
3 + 7 =
7 + =
10
2 + 8 =

A


0
1
1

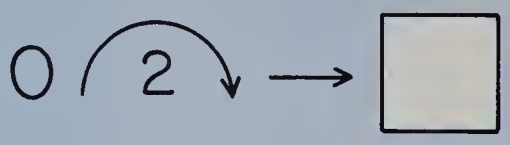
0 1 2 3 4 5 6

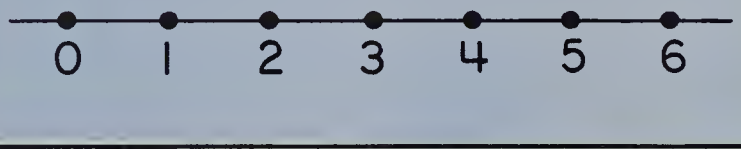
C


2
2

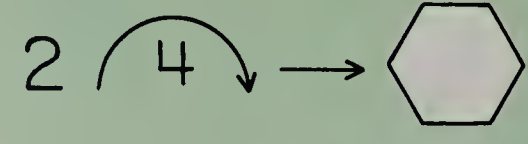
0 1 2 3 4 5 6

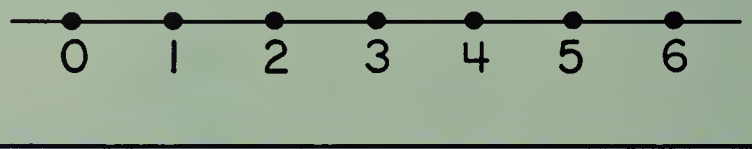
B


0
2

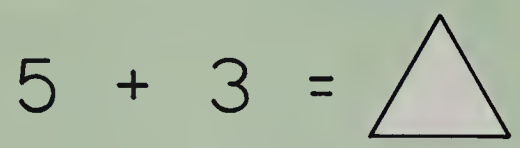

0 1 2 3 4 5 6

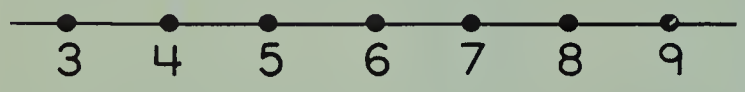
D


2
4

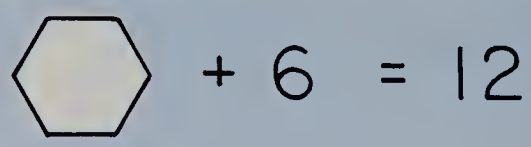

0 1 2 3 4 5 6

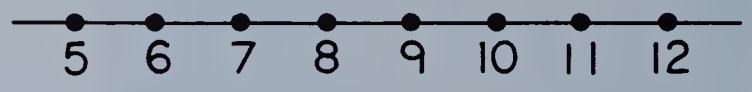
E


5 + 3 =

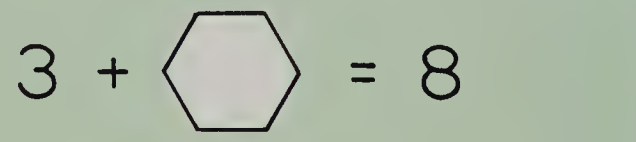

3 4 5 6 7 8 9

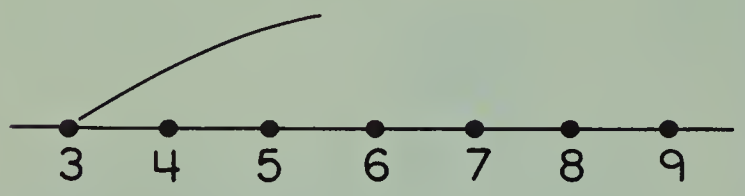
H


+ 6 = 12

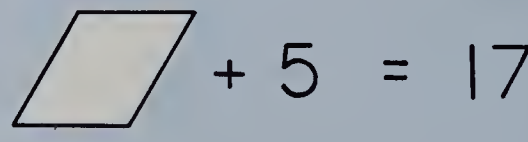

5 6 7 8 9 10 11 12

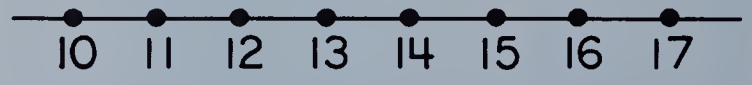
F


3 +
= 8

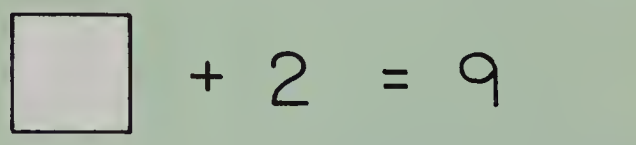

3 4 5 6 7 8 9

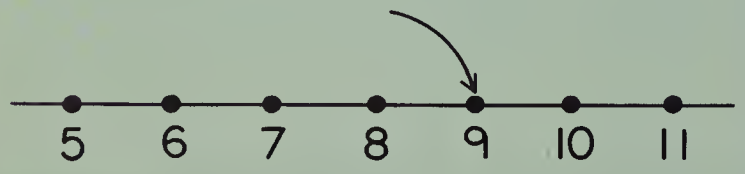
I


+ 5 = 17


10 11 12 13 14 15 16 17

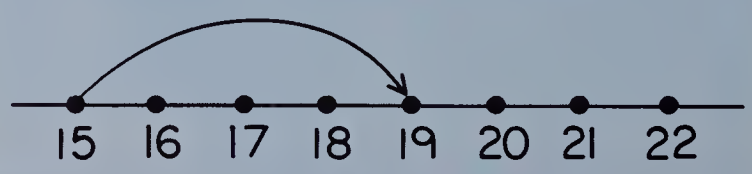
G


+ 2 = 9


5 6 7 8 9 10 11

J

+
=


15 16 17 18 19 20 21 22

A

B

C

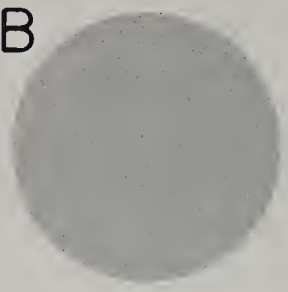
D

	COINS			¢		
	Pennies	Nickels	Total	Pennies	Nickels	Total
A	4	1		4 ¢	¢	9 ¢
B						
C						
D						

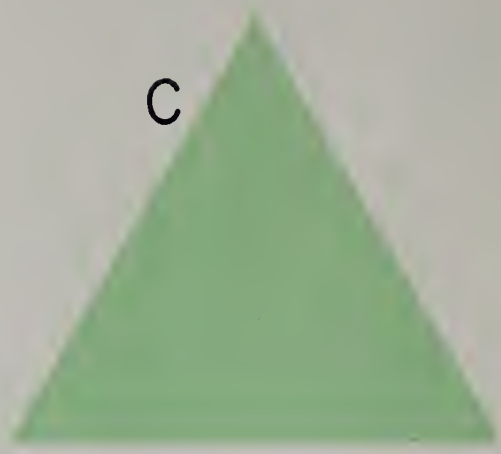
LARGEST — IN-BETWEEN — SMALLEST

A

B



C



E

D

	LARGEST	IN-BETWEEN	SMALLEST
	A		
		B	

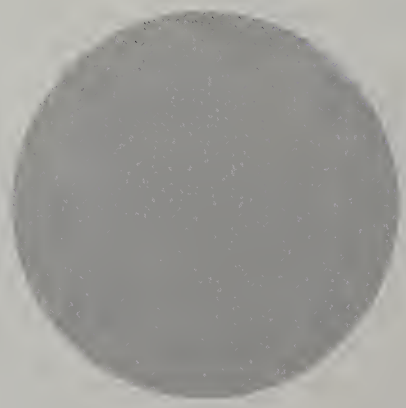
F

G

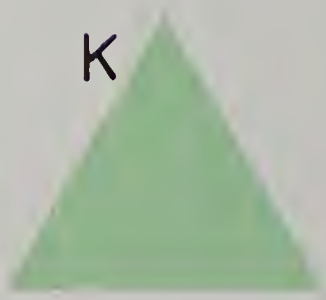
H

I

L

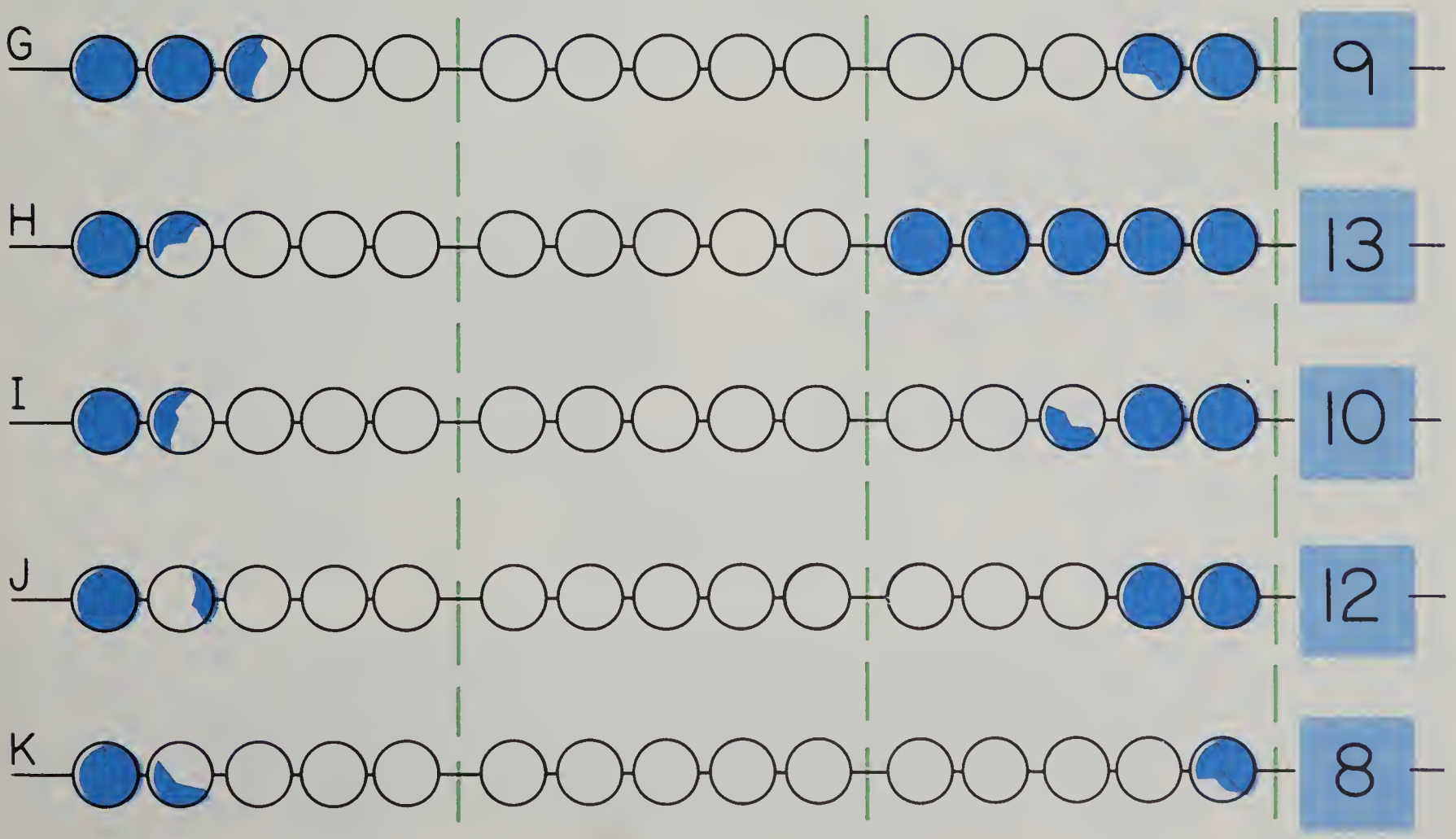


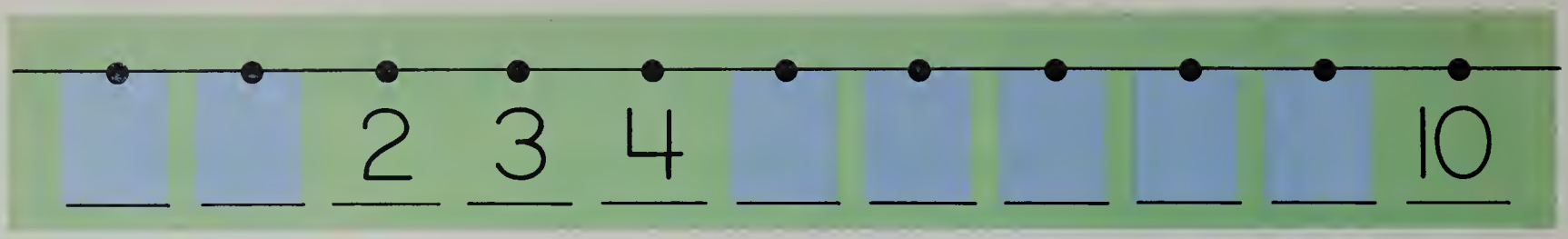
K

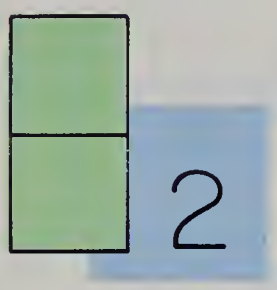


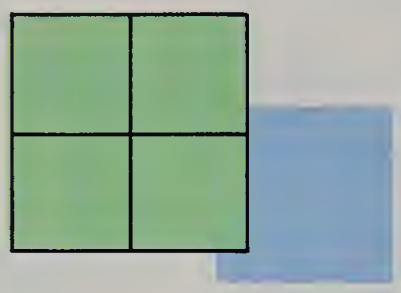
J

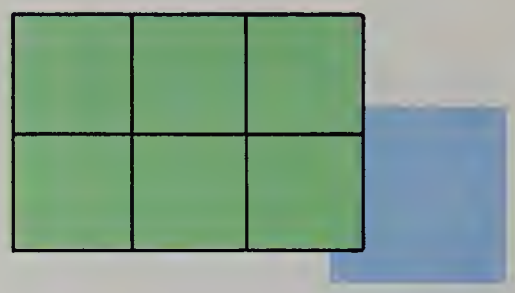
A
15
B
C
D
E
F

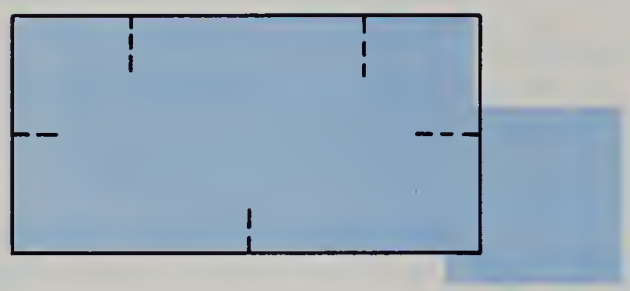

G
9
H
13
I
10
J
12
K
8

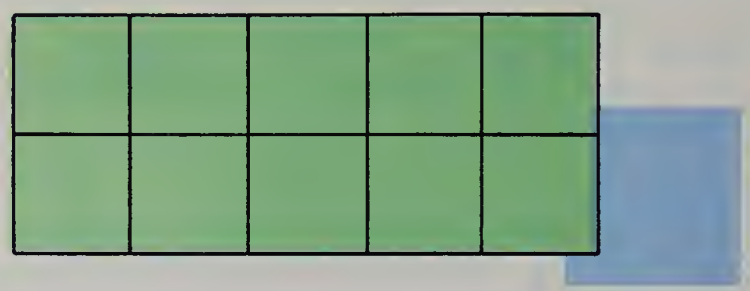

2 3 4 10

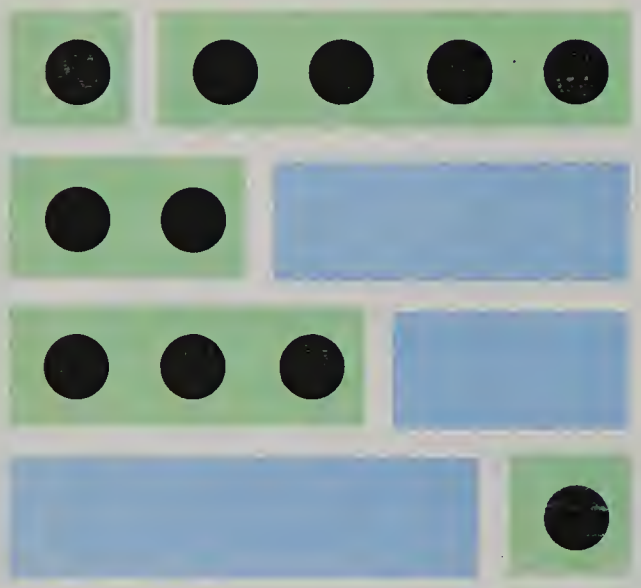

2

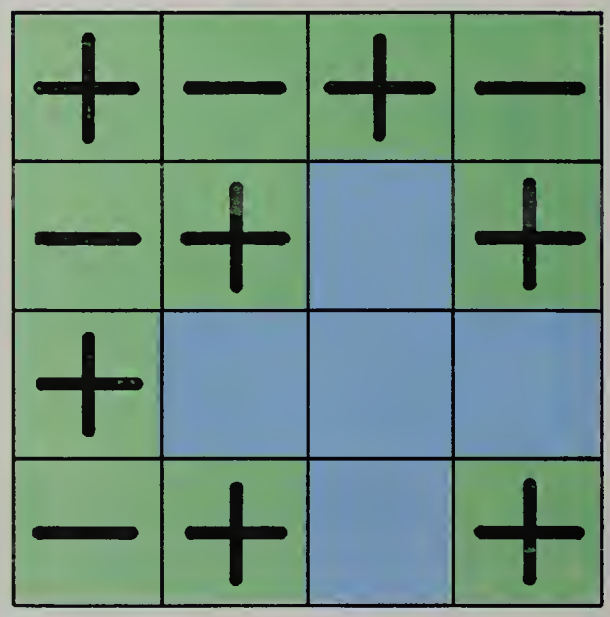


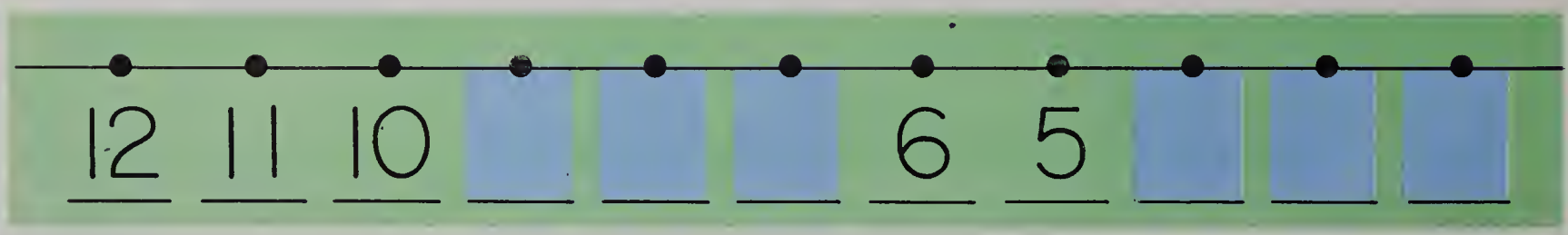


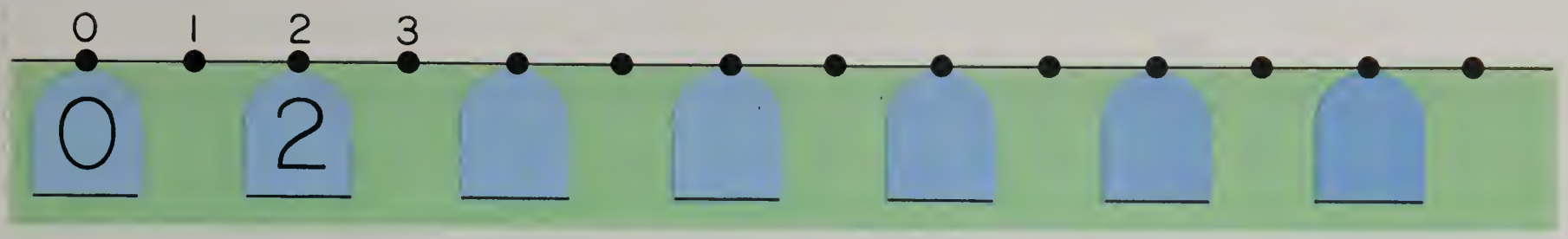









12 11 10 6 5



$2 + 4 = 6$

$5 + 1 = 6$

$4 + 7 = 11$

$3 + 0 = 3$

$+ 4 = 4$

$+ 2 = 4$

$+ 4 = 4$

$+ 1 = 4$

$6 + 2 = 8$

$5 + 2 = 7$

$5 + 0 = 5$

$2 + 3 = 5$

$4 + 1 = 5$

$3 + 2 = 5$

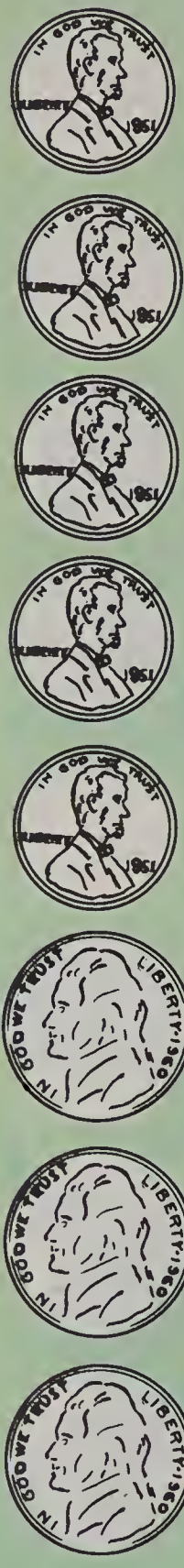
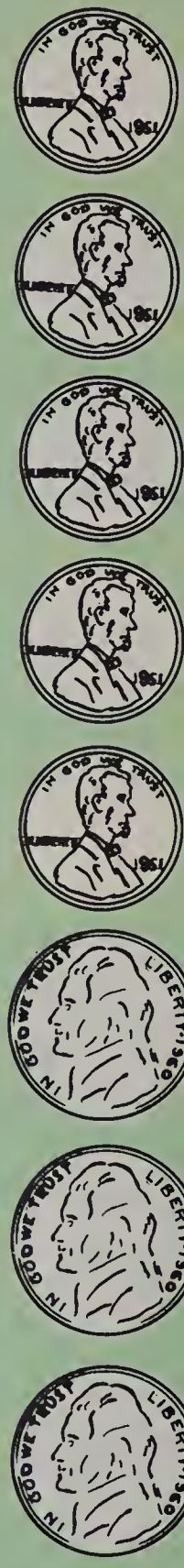
$1 + 4 = 5$

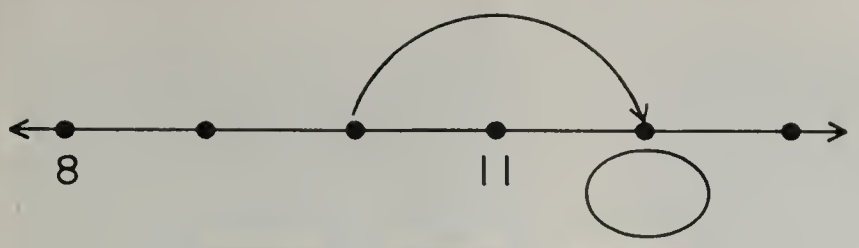
$3 + 3 = 6$

$9 + 1 = 10$

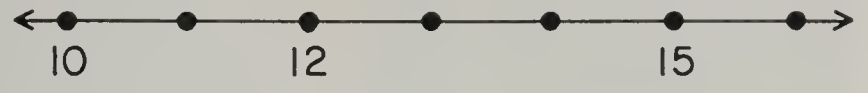
$6 + 1 = 7$

$5 + 2 = 7$

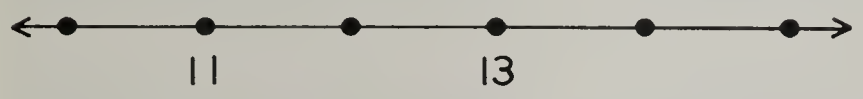
A	B	C	D	E	F
8¢	6¢	15¢	10¢	19¢	11¢
					
3 1¢	___ 1¢	___ 1¢	___ 1¢	___ 1¢	___ 1¢
1 5¢	___ 5¢	___ 5¢	___ 5¢	___ 5¢	___ 5¢



10 + 2 = ☐

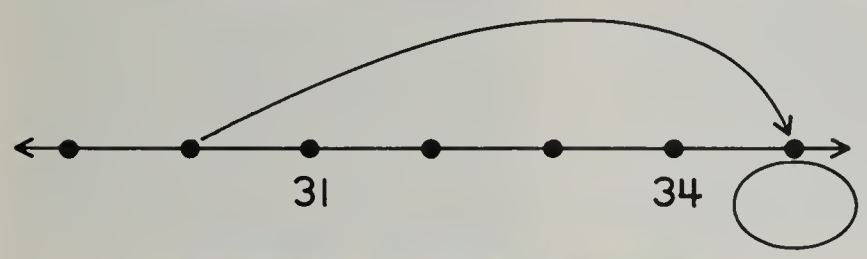


10 + 6 = ☐

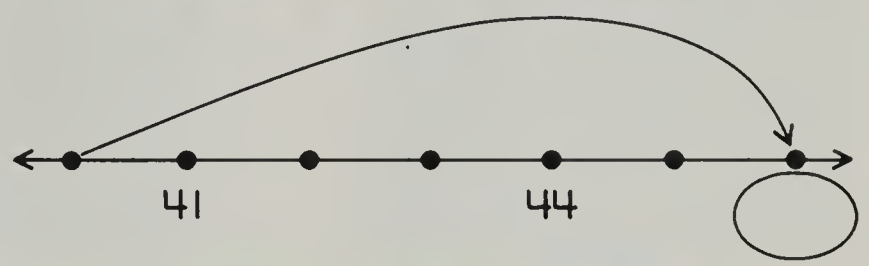


☐ + 4 = 14

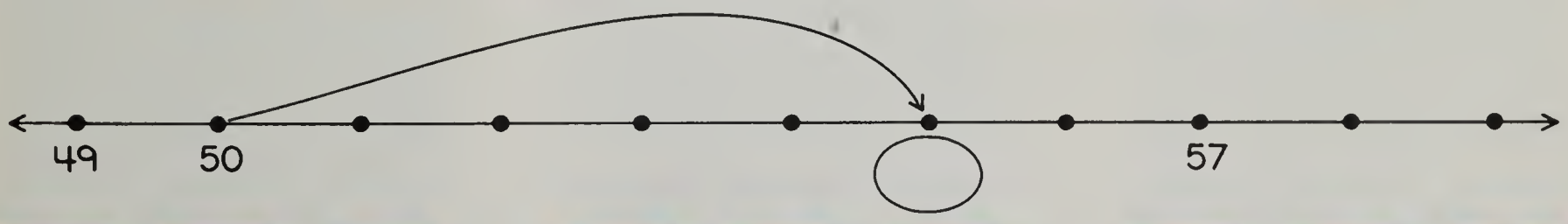
20 + 5 = ☐



☐ + ☐ = ☐



☐ + ☐ = ☐



50 + 5 = ☐

☐ + 6 = 56

50 + ☐ = 58

The time is ☐ : ☐

20 + ☐ = 26

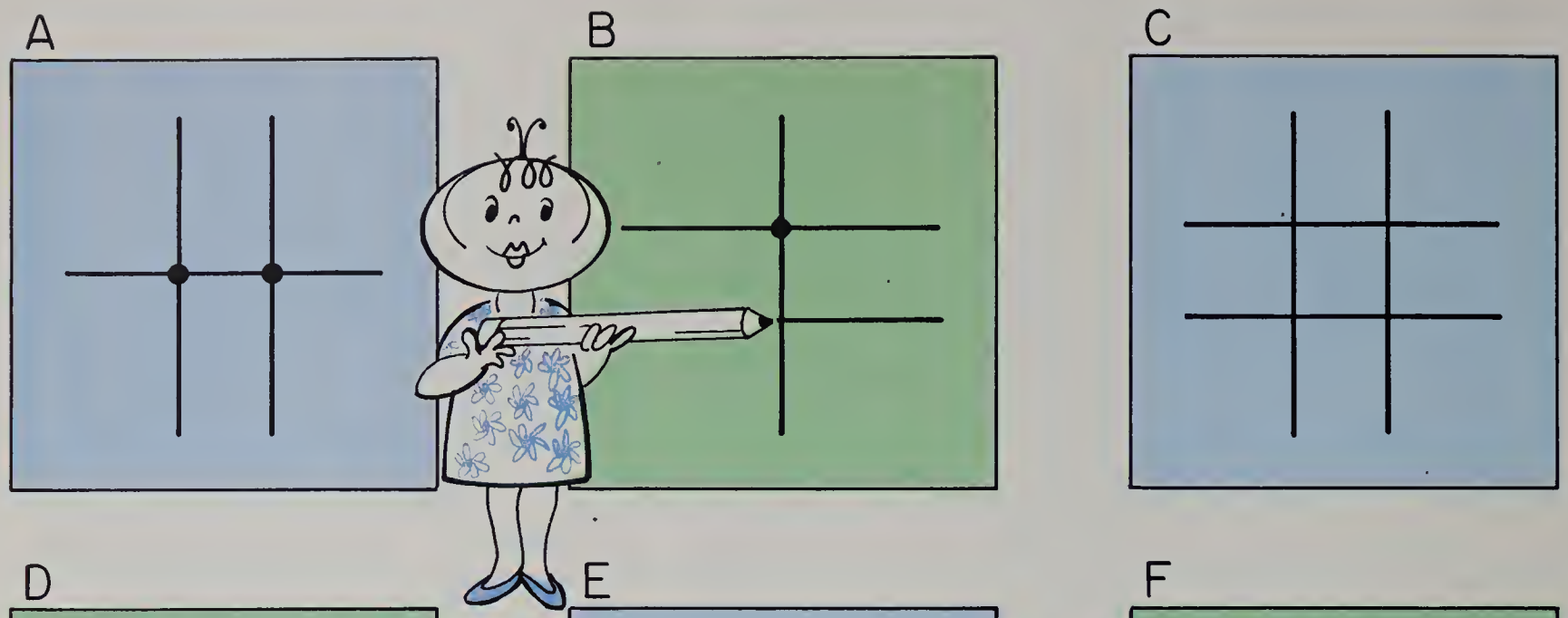
☐ + 20 = 26

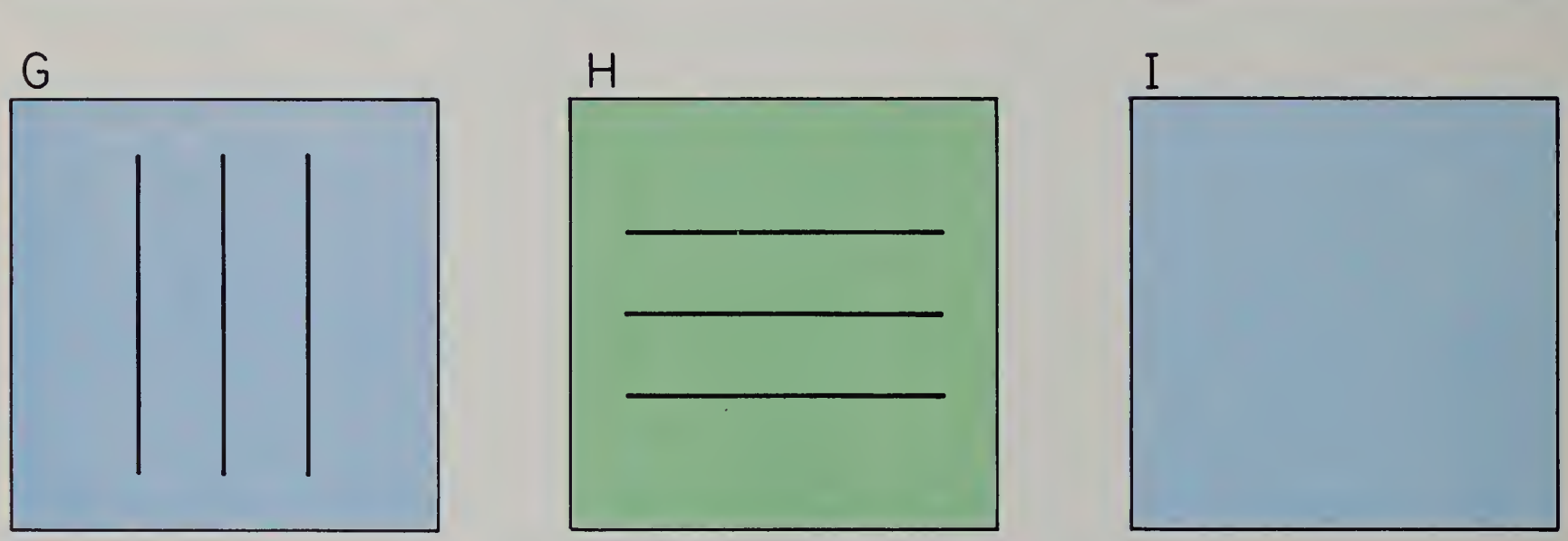
4 + ☐ = 34

40 + ☐ = 47

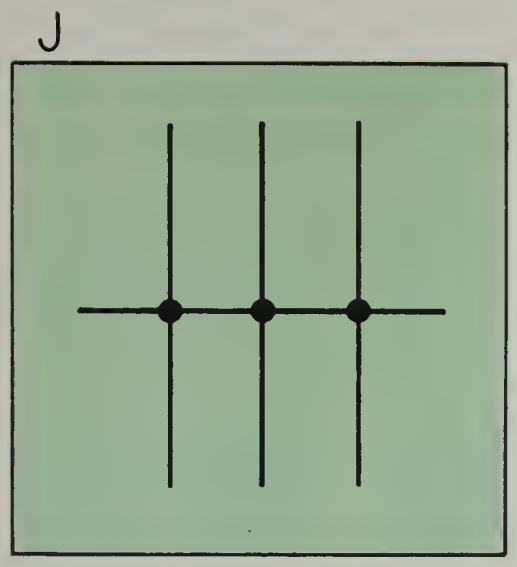
57 = 7 + ☐

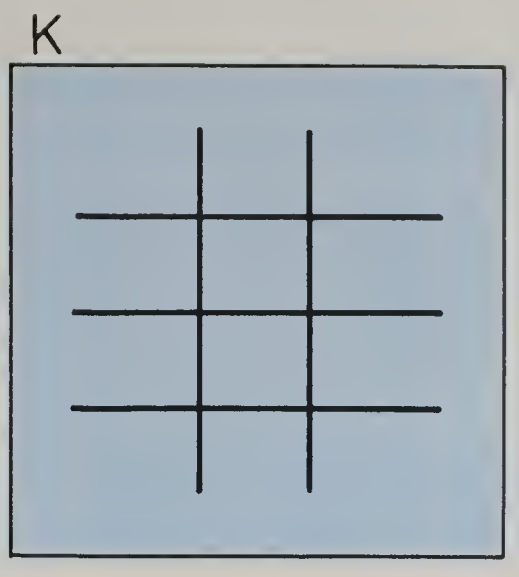
57 = 50 + ☐

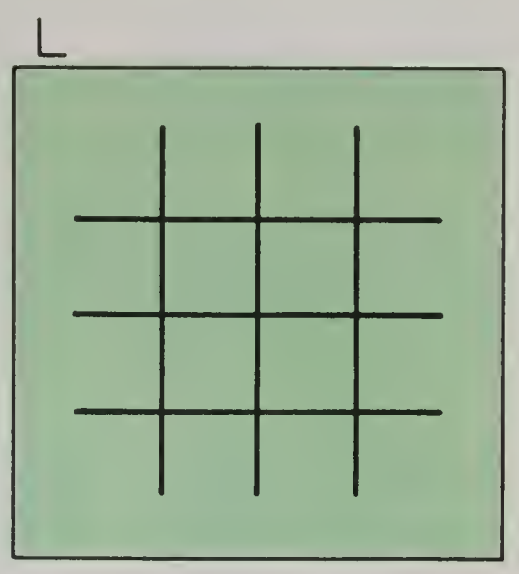


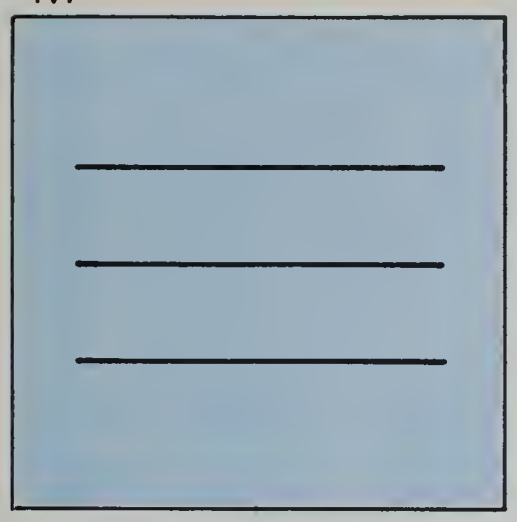


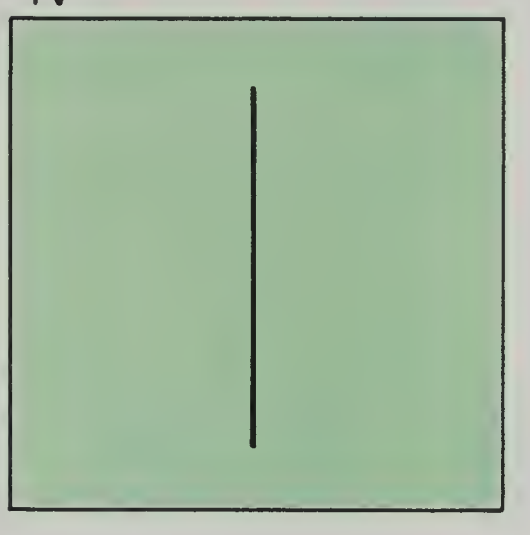
	A	B	C	D	E	F	G	H	I
Lines	1						1		3
Lines	2			0				2	3
	2				0				

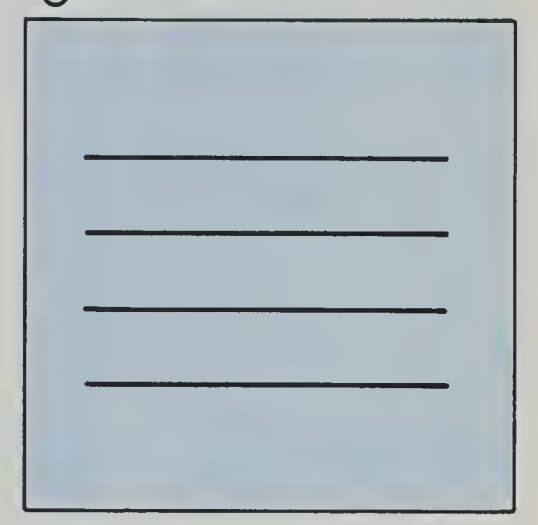


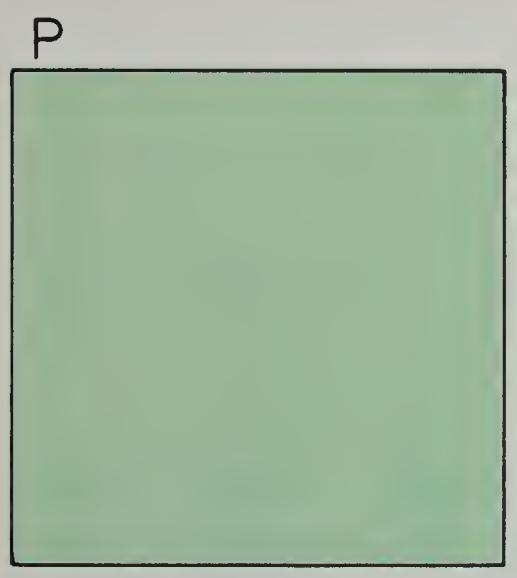


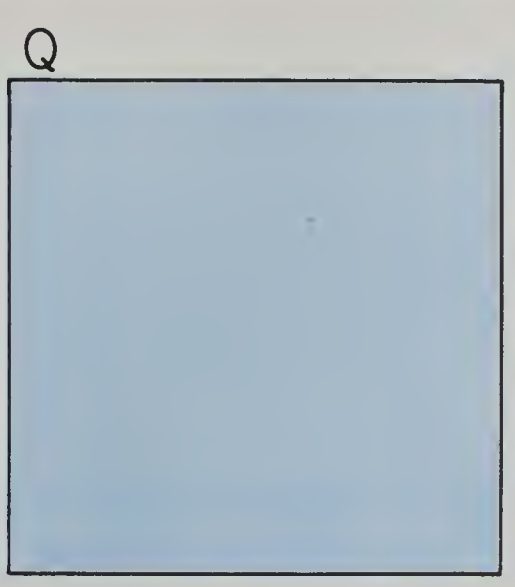


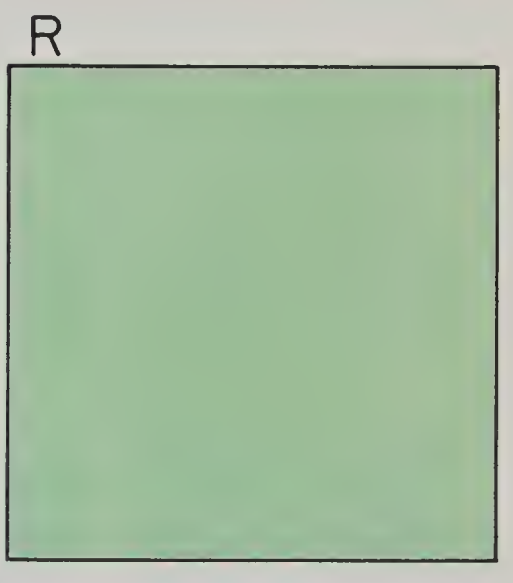




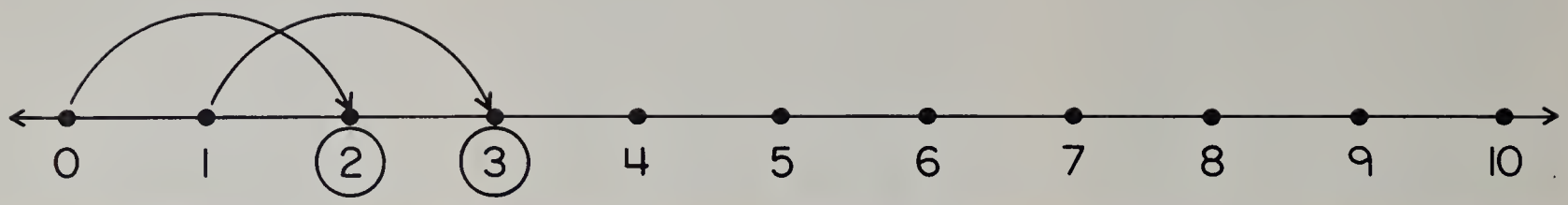




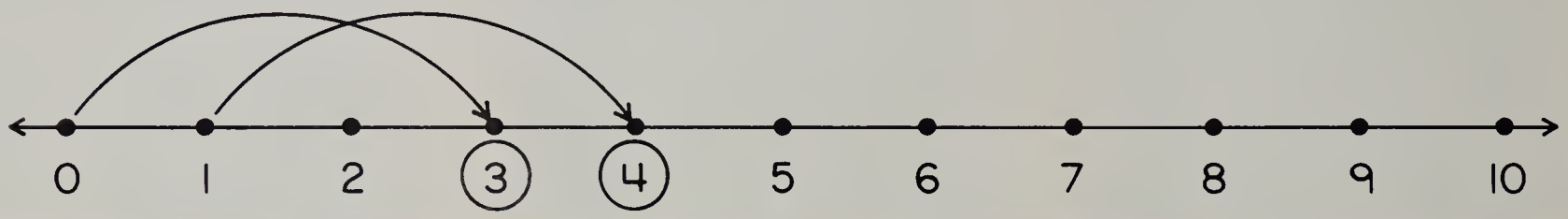




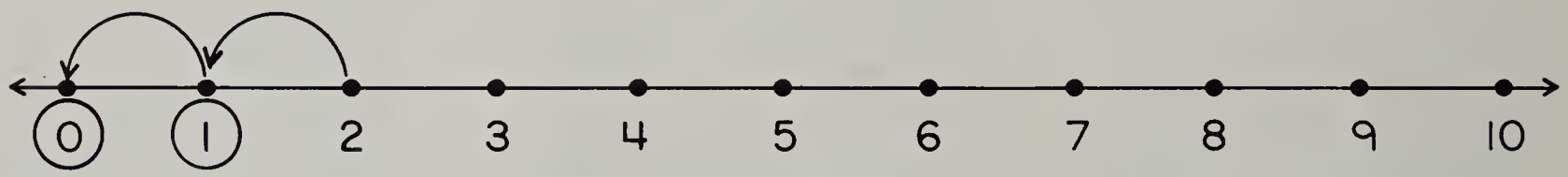
	J	K	L	M	N	O	P	Q	R
— Lines	1				4		2		4
| Lines	3			1				2	4
+	3					0	6	8	



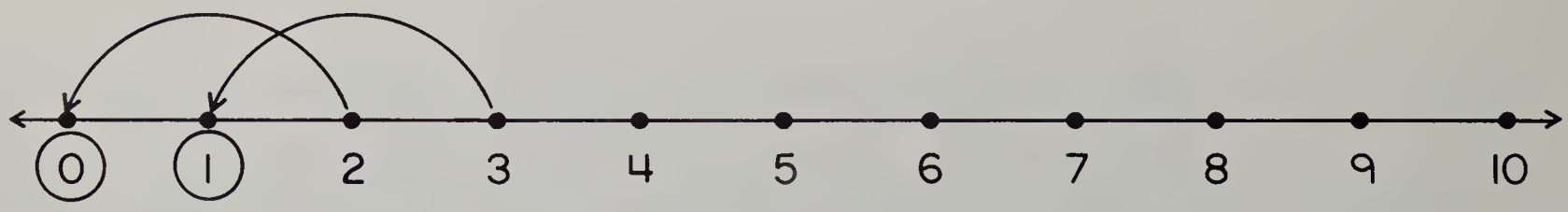
0 → 2 | 1 → 3 | 4 → ☐ | 6 → ☐ | 7 → ☐



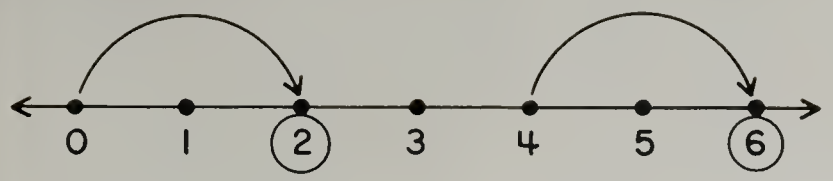
0 → 3 | 1 → 4 | 7 → ☐ | 5 → ☐ | 6 → ☐

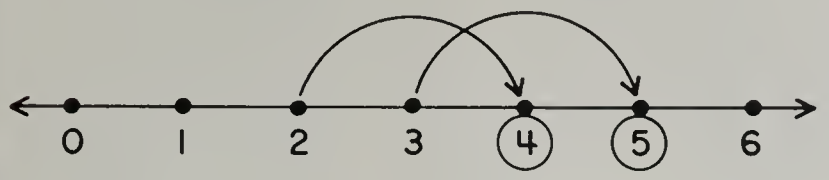


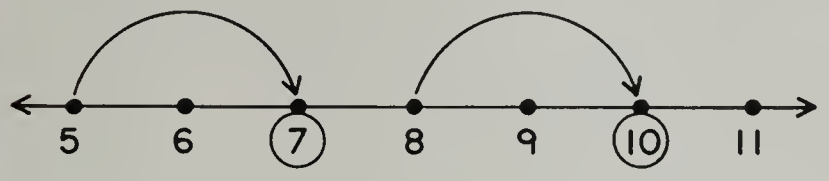
1 → 0 | 2 → 1 | 8 → ☐ | 6 → ☐ | 10 → ☐

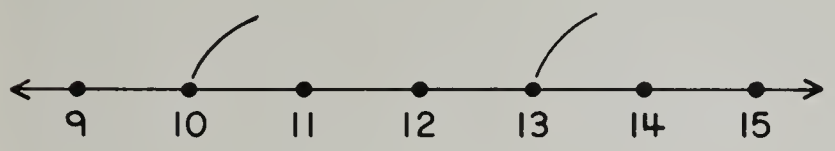


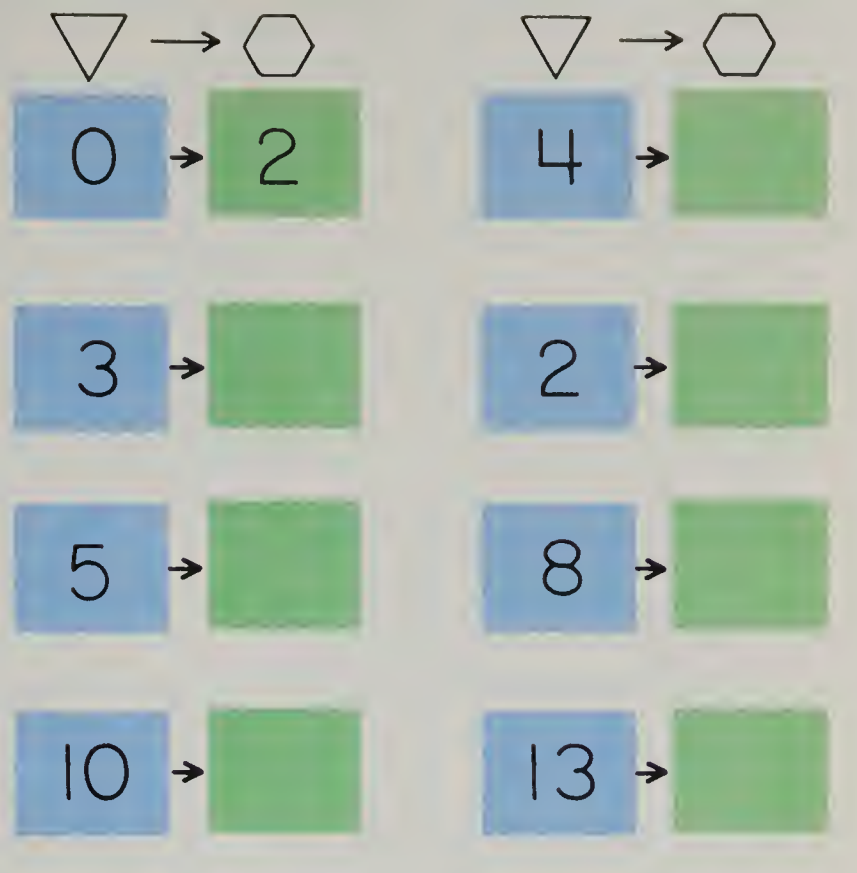
2 → 0 | 3 → ☐ | 7 → ☐ | 8 → ☐ | 10 → ☐

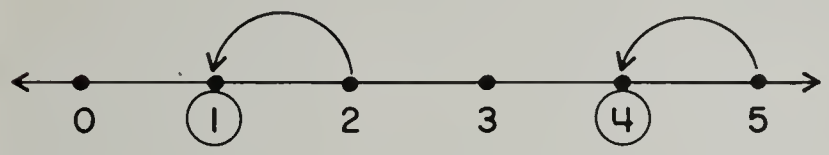

0 1 2 3 4 5 6

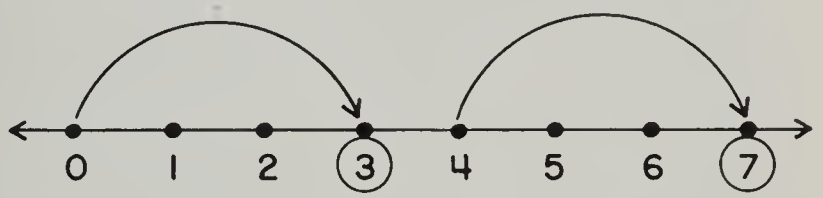

0 1 2 3 4 5 6

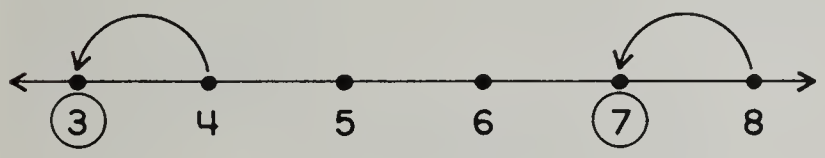

5 6 7 8 9 10 11

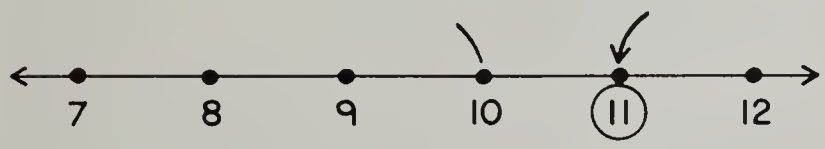

9 10 11 12 13 14 15

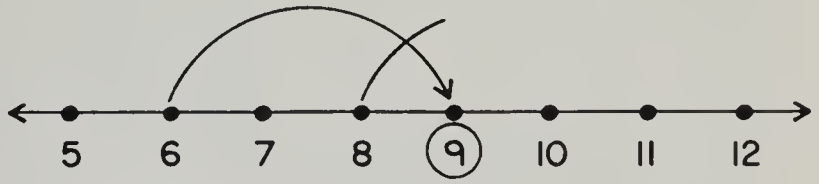

0 → 2
4 →
3 →
2 →
5 →
8 →
10 →
13 →

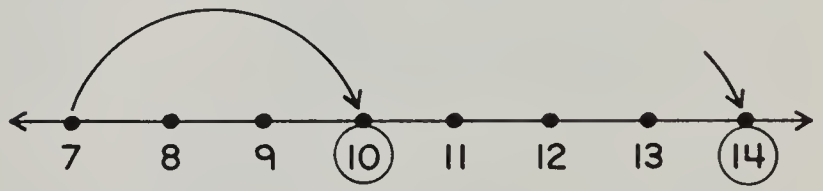

0 1 2 3 4 5

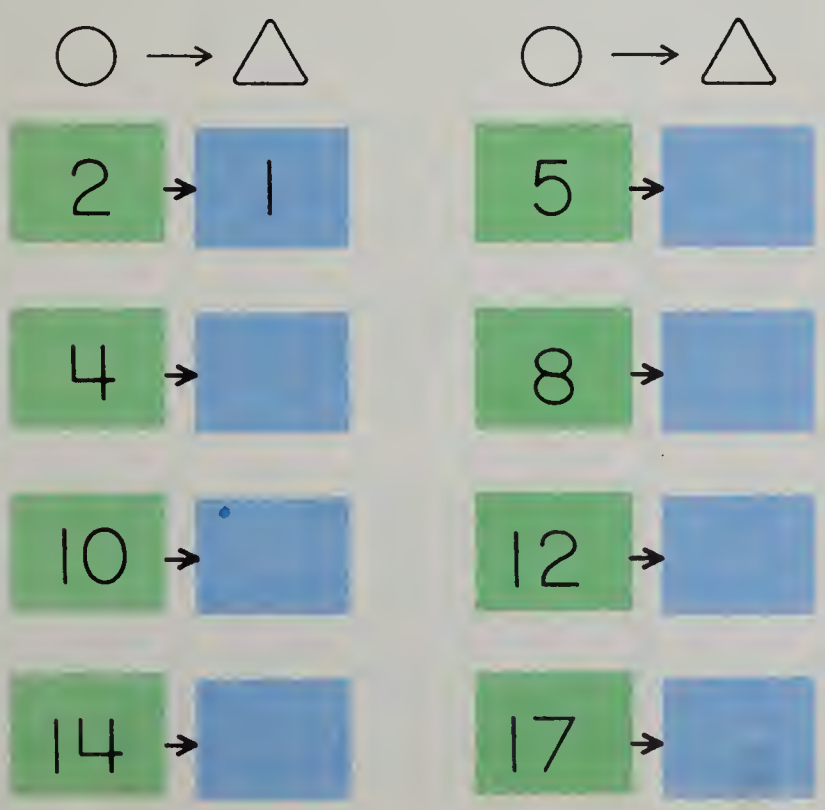

0 1 2 3 4 5 6 7

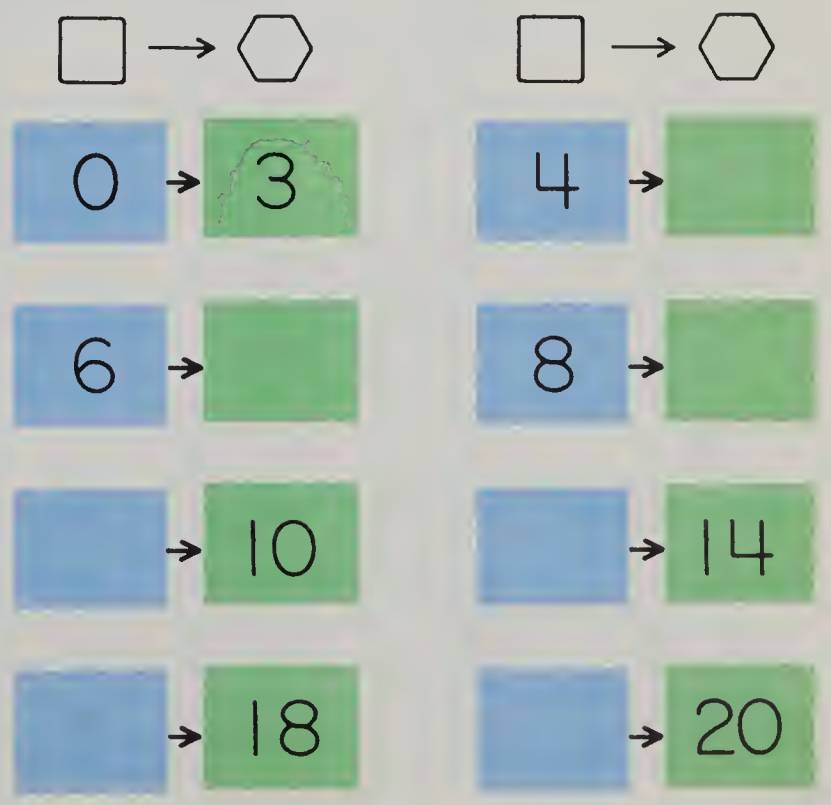

3 4 5 6 7 8


7 8 9 10 11 12


5 6 7 8 9 10 11 12


7 8 9 10 11 12 13 14


○ → △
2 → 1
4 →
10 →
14 →
○ → △
5 →
8 →
12 →
17 →


□ → ⬡
0 → 3
6 →
→ 10
→ 18
□ → ⬡
4 →
8 →
→ 14
→ 20

A

+	1	2	3
+	4	3	7
	5	5	10

B

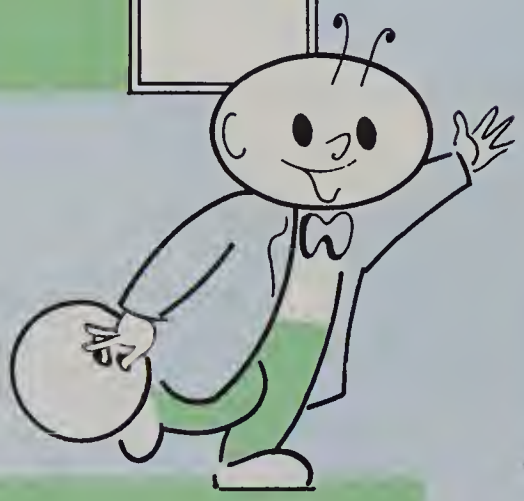
+	4	2	
+	3	1	

C

+	2	3	
+	1	4	

D

+	4	3	
+	2	1	

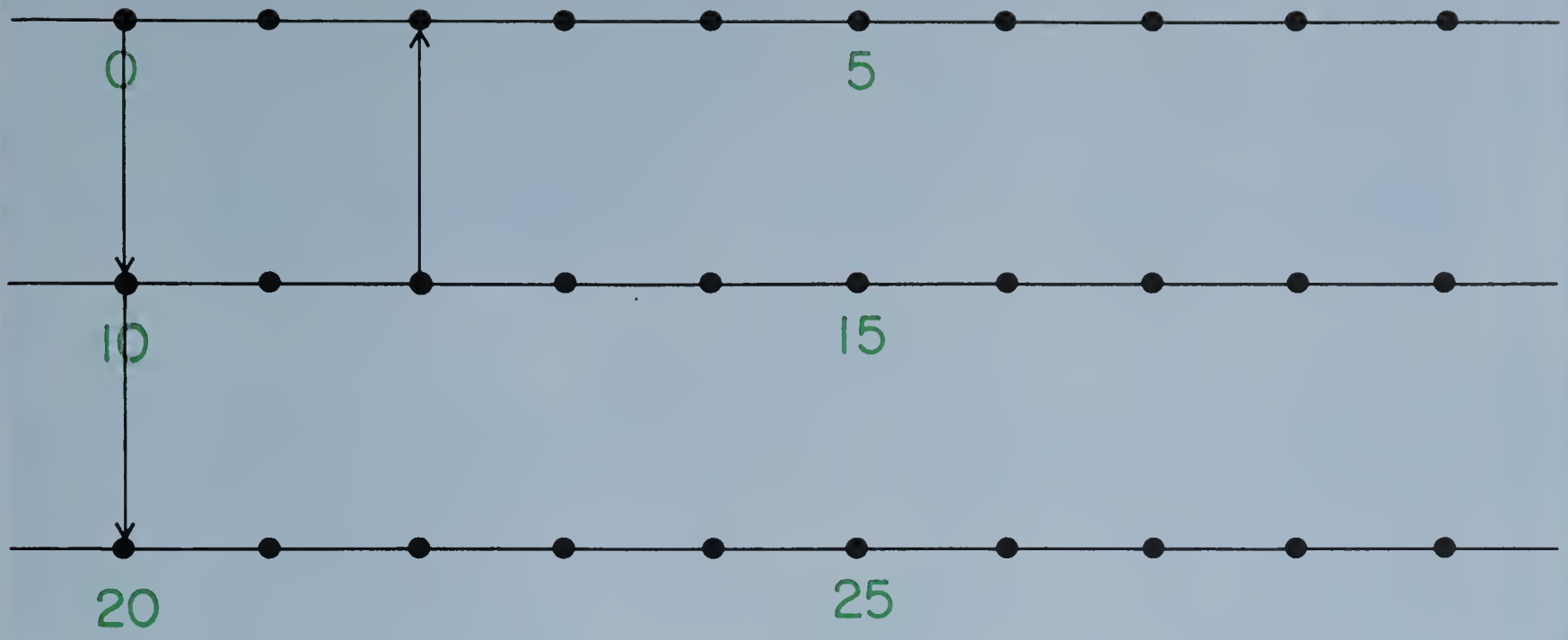


A $5 + 5 = 3 + 7$

B $__ + __ = __ + __$

C $__ + __ = __ + __$

D $__ + __ = __ + __$



$0 + 10 = 10$

$10 + 10 =$

$20 + 10 =$

$+ 10 = 40$

$15 + 10 =$

$+ 10 = 35$

$14 + 10 =$

$+ 10 = 32$

$38 + 10 =$

$+ 10 = 28$

$$\begin{array}{r} 12 \\ -\,10 \\ \hline \end{array}$$

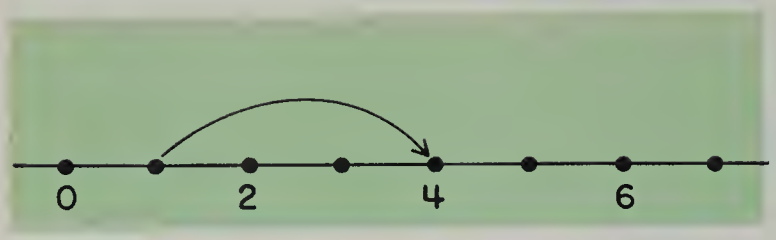
$$\begin{array}{r} 20 \\ -\,10 \\ \hline \end{array}$$

$$\begin{array}{r} \\ -\,10 \\ \hline \end{array}$$

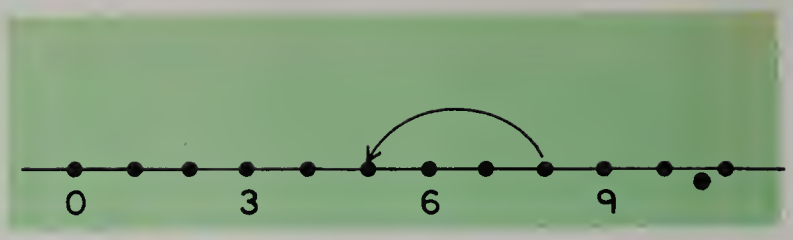
$$\begin{array}{r} 17 \\ -\,10 \\ \hline \end{array}$$

$$\begin{array}{r} \\ -\,10 \\ \hline \end{array}$$

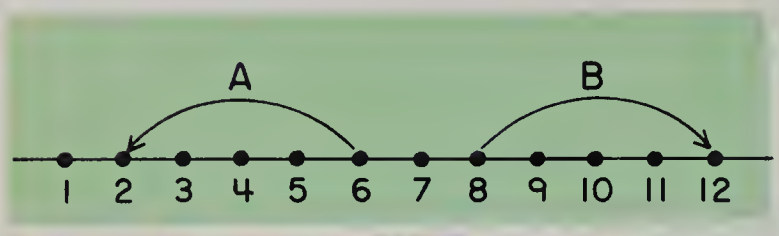
$$\begin{array}{r} \\ -\,10 \\ \hline \end{array}$$



____ + ____ = ____

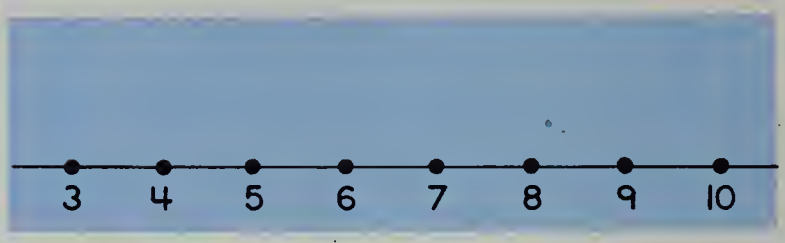


____ − ____ = ____



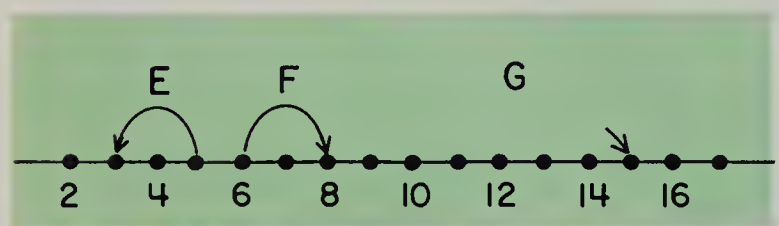
A. ____ − ____ = ____

B. ____ = ____



C. 3 + 3 = ____

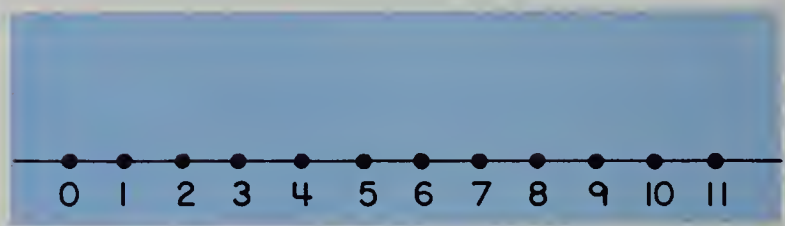
D. ____ − 2 = 7



E. ____ = ____

F. ____ = ____

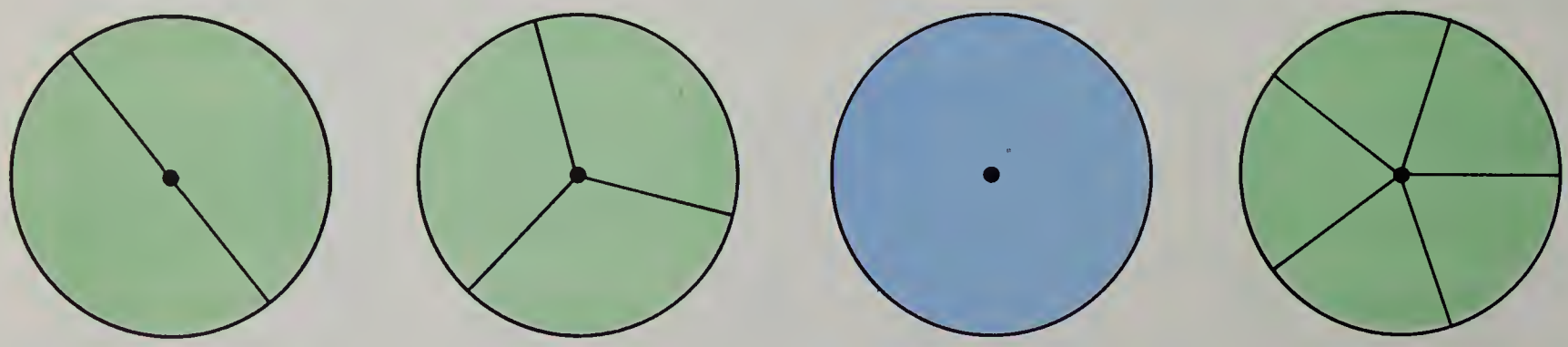
G. 10 + 5 = ____

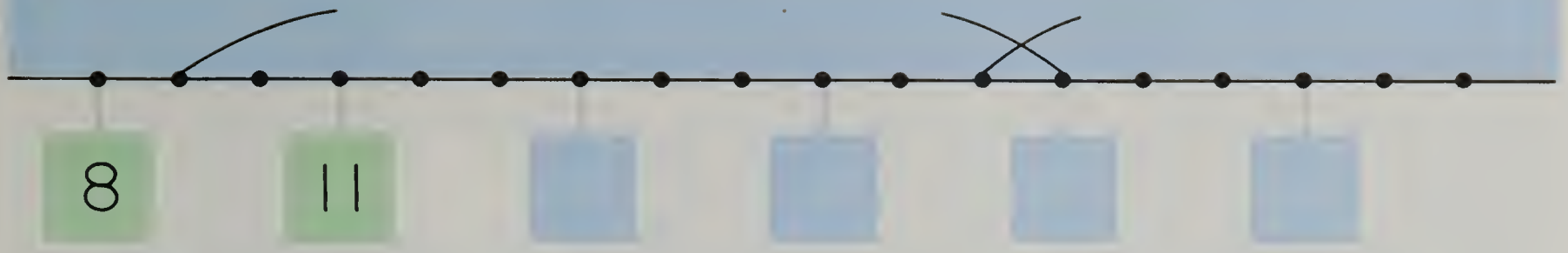


H. 10 − 3 = ____

I. 0 + ____ = 1

J. ____ − 2 = 4





9 + ___ = 17

20 − ___ = 15

19 + 3 = ___

6	0
3	9

3	5
7	9

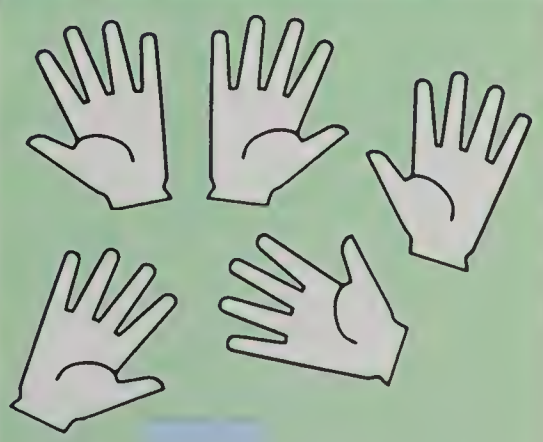
5	10
15	20
25	

20	10
14	5

5		12
		16
17		

___ coins

___ ¢



___ fingers and thumbs

The time is ___ : ___

m

n

5

o

p

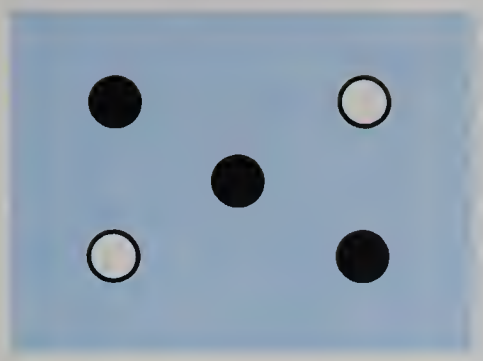
q

r

S

The time is

A



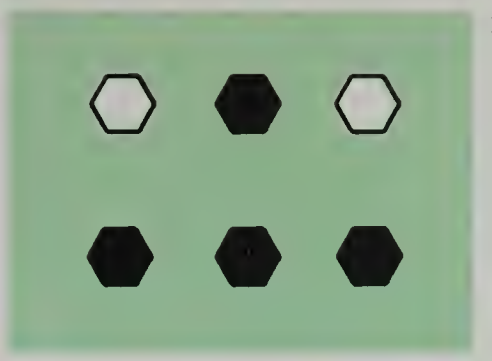
$3 + 2 = __$

$2 + 3 = __$

$5 - 3 = __$

$5 - 2 = __$

B



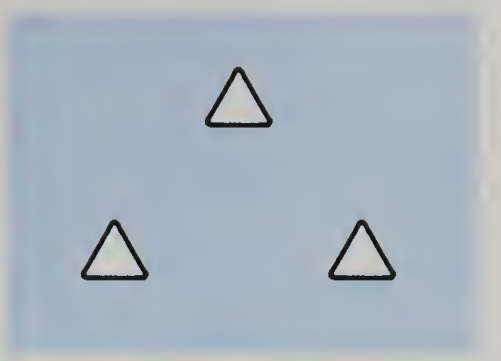
$4 + 2 = __$

$__ + __ = __$

$__ - __ = __$

$__ - __ = __$

C



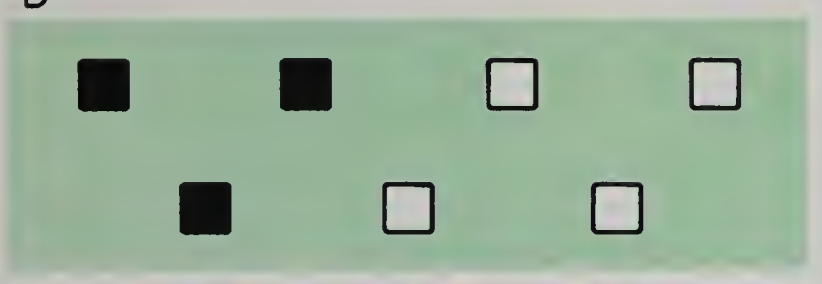
$3 + 0 = __$

$__ + __ = __$

$__ - __ = __$

$__ - __ = __$

D



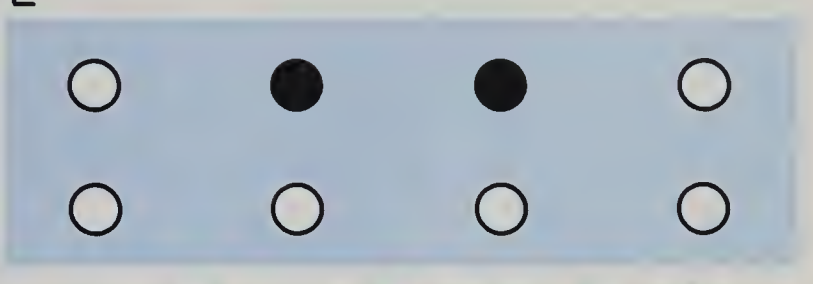
$4 + __ = 7$

$__ + __ = __$

$__ - __ = __$

$__ - __ = __$

E



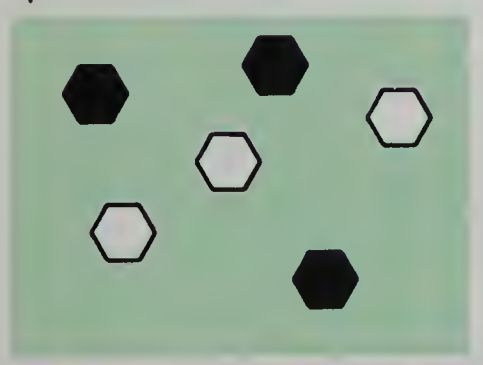
$__ + __ = __$

$__ + __ = __$

$__ - __ = __$

$__ - __ = __$

F



$3 + __ = __$

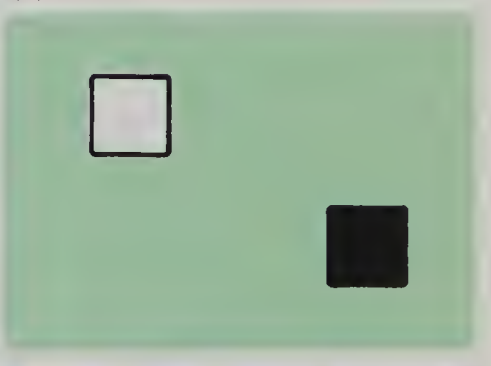
$6 - __ = __$

G

$__ + __ = __$

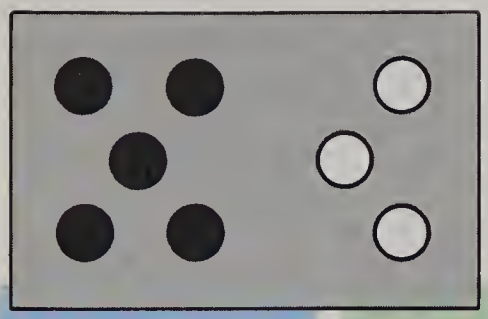
$__ - __ = __$

H



$__ + __ = __$

$__ - __ = __$

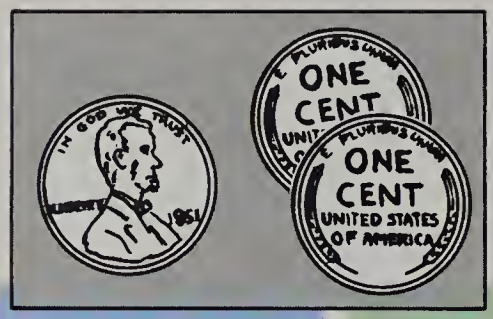


$5 + 3 = __$

$3 + __ = __$

$8 - __ = 3$

$__ - __ = __$

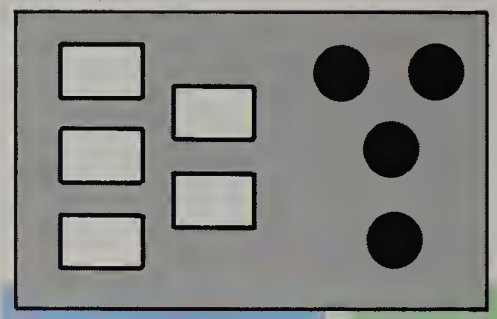

IN GOD WE TRUST
1951
ONE CENT
UNITED STATES OF AMERICA
ONE CENT

$__ + __ = __$

$__ + __ = __$

$__ - __ = __$

$__ - __ = __$

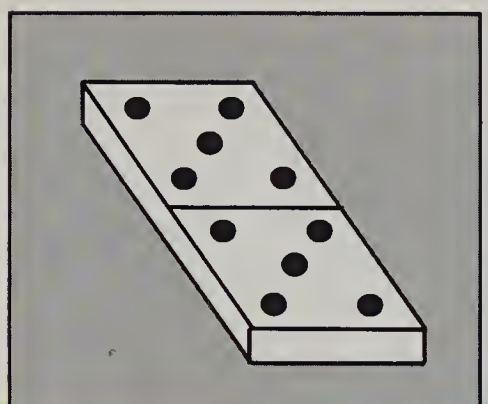


$__ + __ = __$

$__ + __ = __$

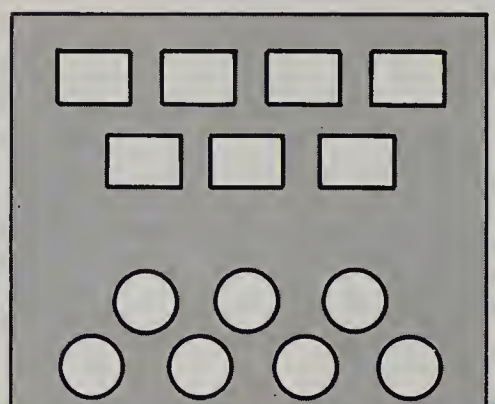
$__ - __ = __$

$__ - __ = __$



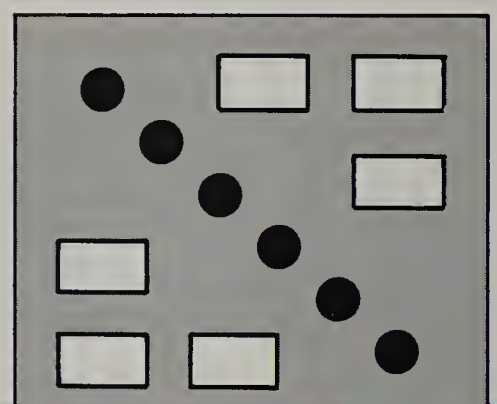
$5 + __ = __$

$10 - __ = __$



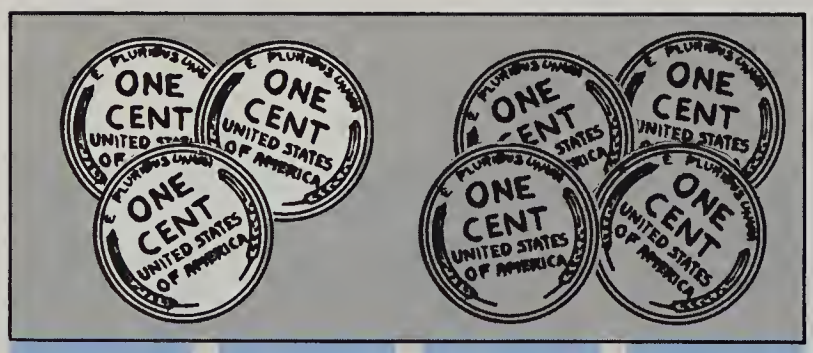
$__ + __ = __$

$__ - __ = __$



$__ + __ = __$

$__ - __ = __$

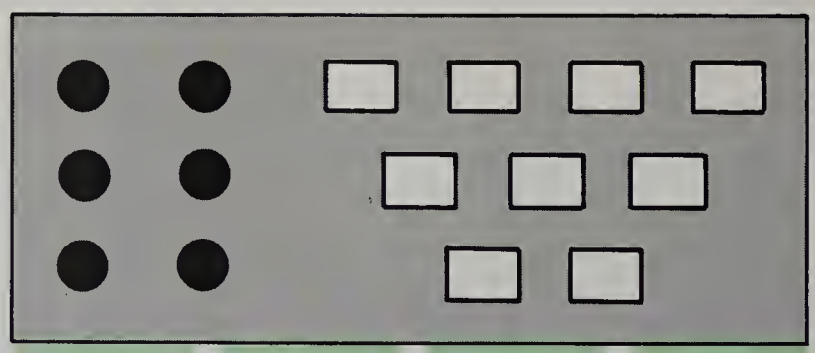

ONE CENT
UNITED STATES OF AMERICA

$3 + __ = 7$

$__ + __ = __$

$__ - __ = __$

$__ - __ = __$



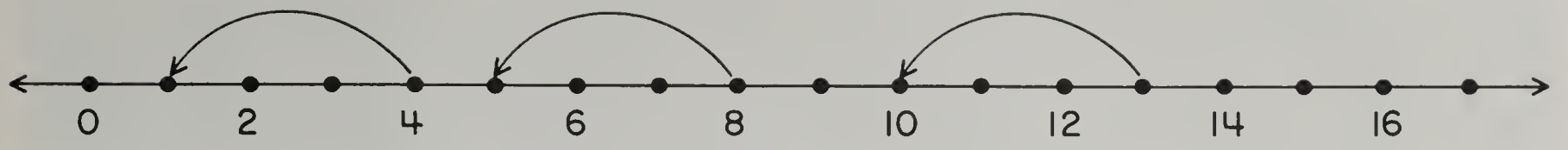
$__ + __ = __$

$__ + __ = __$

$__ - __ = __$

$__ - __ = __$

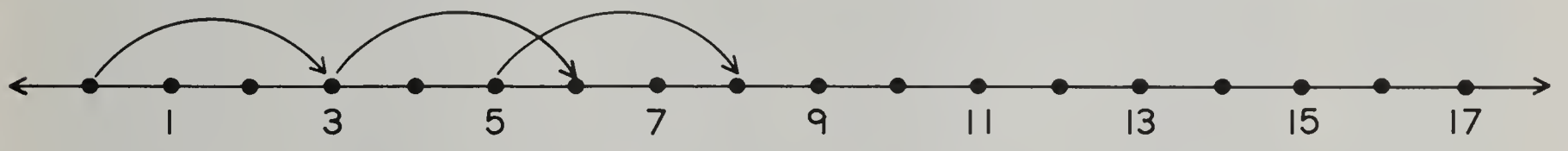
A.



4 → 1 　 8 → 5 　 13 → 10 　 3 → 　 11 →

15 → 　 　 → 9 　 　 → 7 　 　 → 14 　 　 → 4

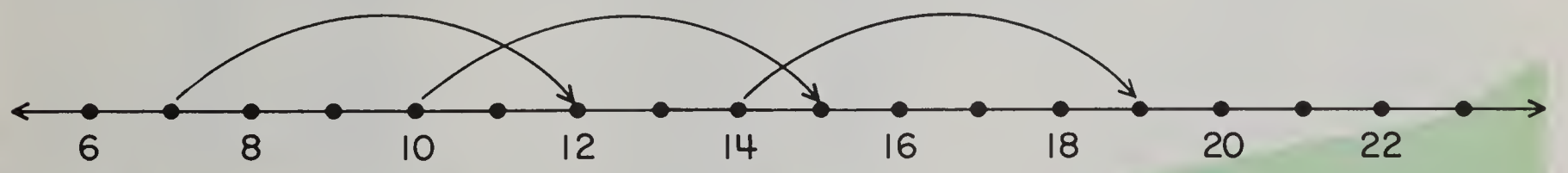
B.



3 → 6 　 0 → 3 　 5 → 　 8 → 　 　 → 7

　 → 13 　 　 → 16 　 9 → 　 　 → 17 　 7 →

C.

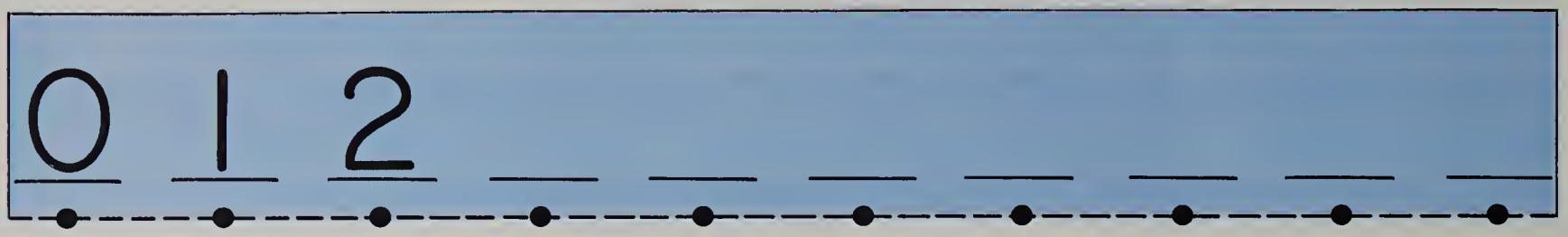


10 → 15 　 　 → 12 　 14 →

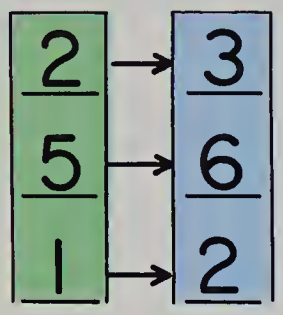
17 → 　 　 → 20 　 　 → 14

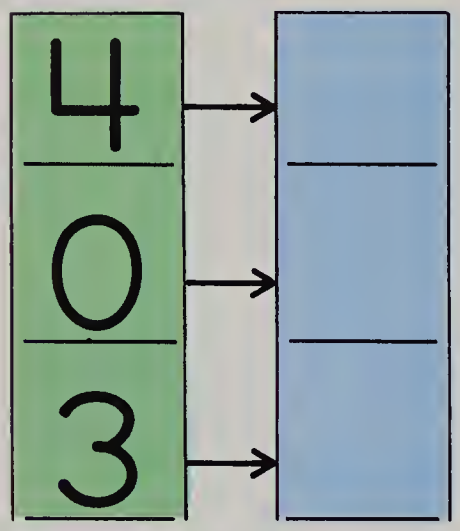
　 → 11 　 13 → 　 　 → 21

　 o'clock

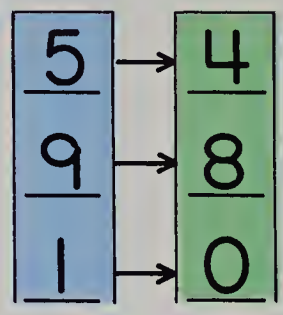

0 1 2

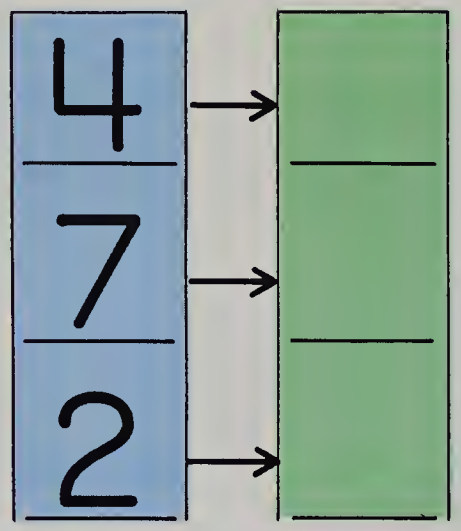
A


2 → 3
5 → 6
1 → 2

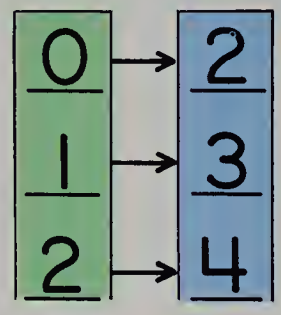

4 → 0 → 3

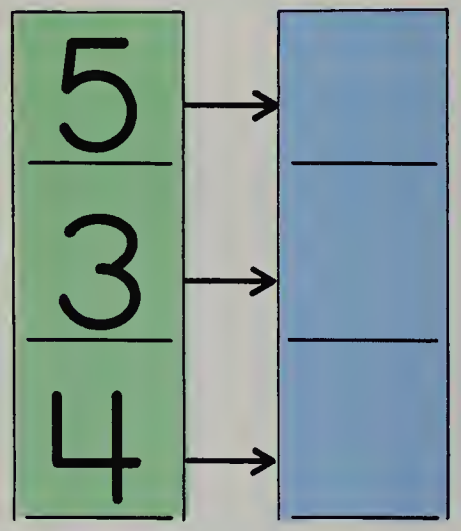
B


5 → 4
9 → 8
1 → 0

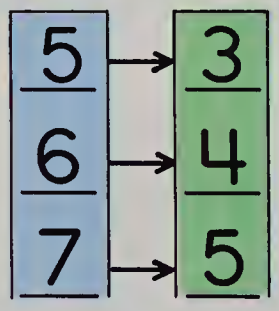

4 → 7 → 2

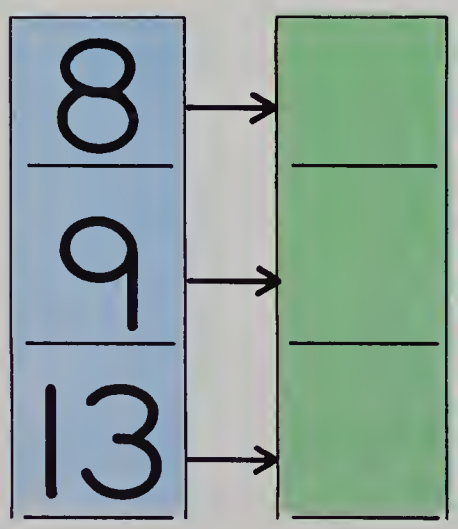
C


0 → 2
1 → 3
2 → 4

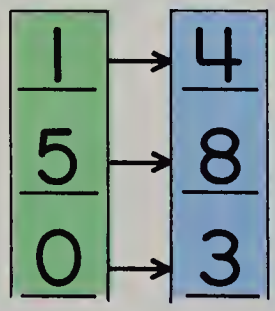

5 → 3 → 4

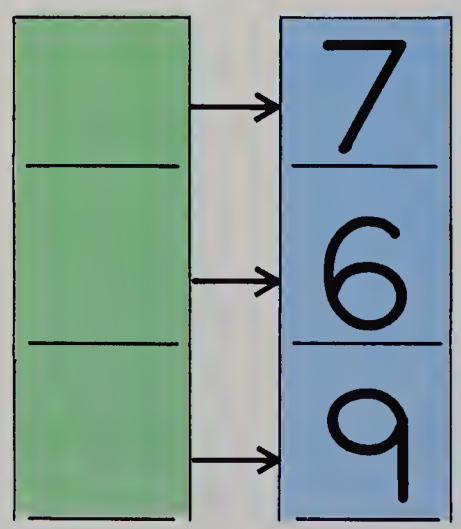
D


5 → 3
6 → 4
7 → 5

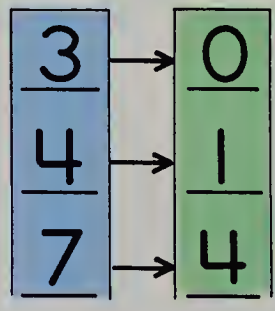

8 → 9 → 13

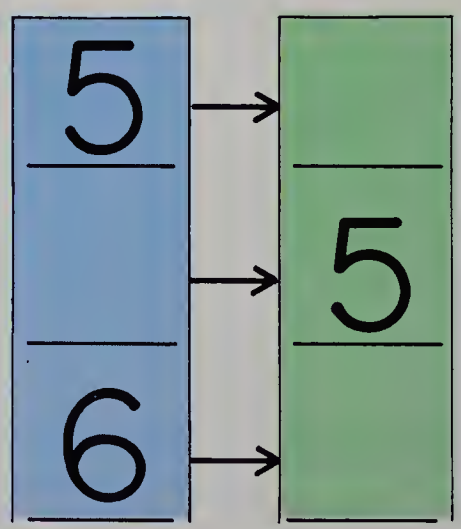
E

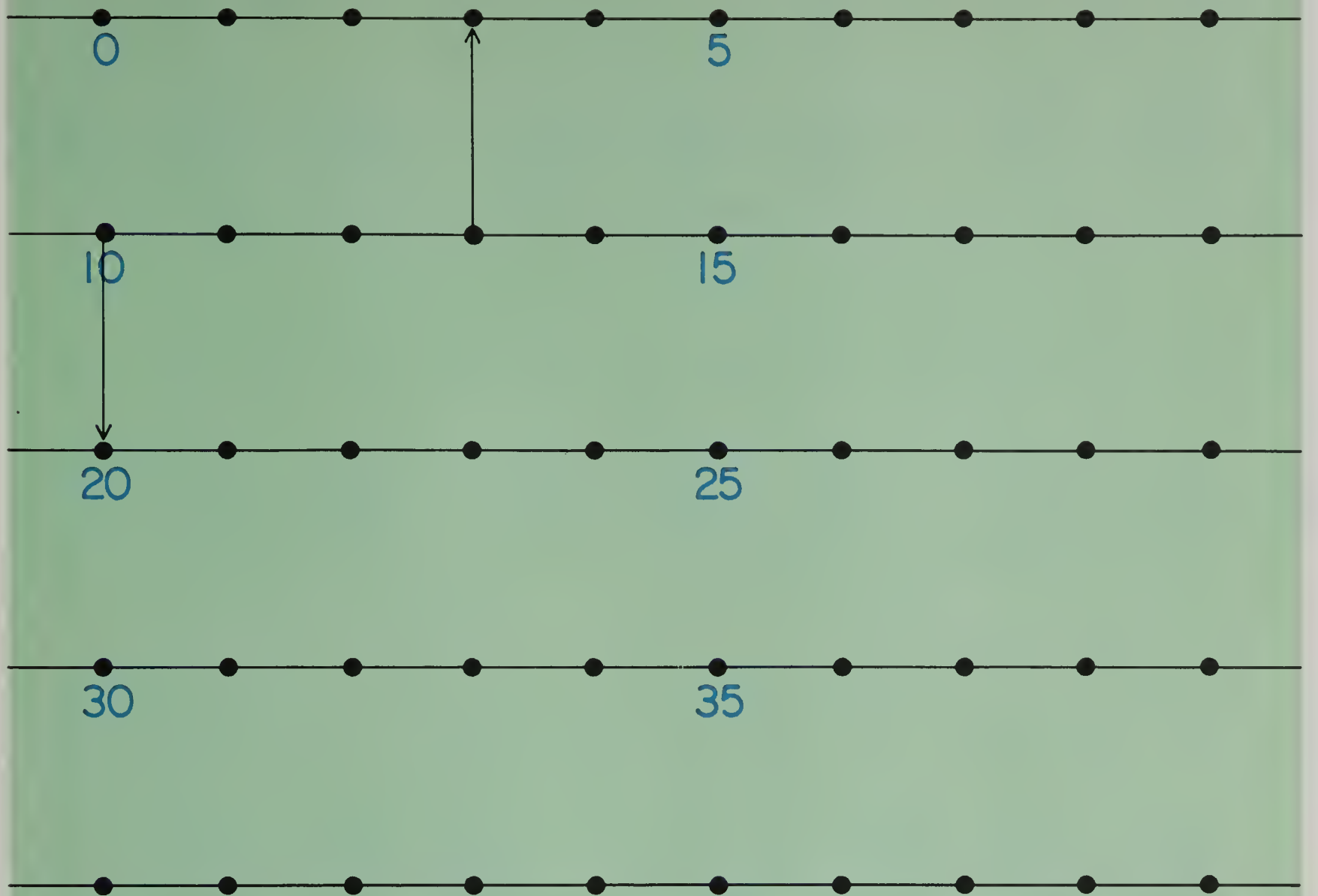

1 → 4
5 → 8
0 → 3


→ 7
→ 6
→ 9

F


3 → 0
4 → 1
7 → 4


5 → 5 → 6



$10 + 10 = 20$

$20 + 10 =$ ☐

$35 + 10 =$ ☐

☐ $+ 10 = 35$

$32 + 10 =$ ☐

$$\begin{array}{r} 13 \\ -\ 10 \\ \hline 3 \end{array}$$

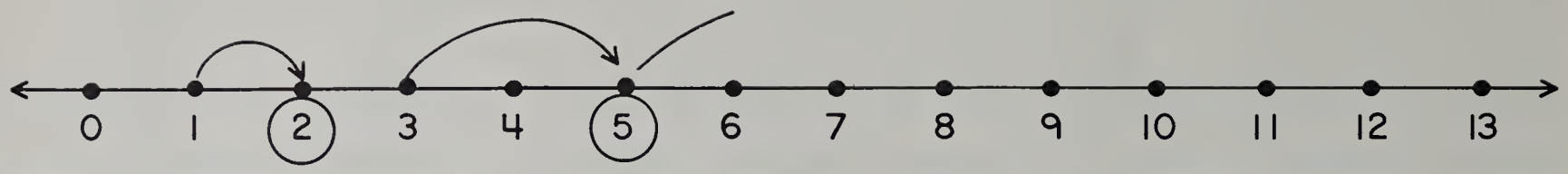
$$\begin{array}{r} 23 \\ -\ 10 \\ \hline \square \end{array}$$

$$\begin{array}{r} \square \\ -\ 10 \\ \hline 25 \end{array}$$

$$\begin{array}{r} \square \\ -\ 10 \\ \hline 38 \end{array}$$

☐ coins

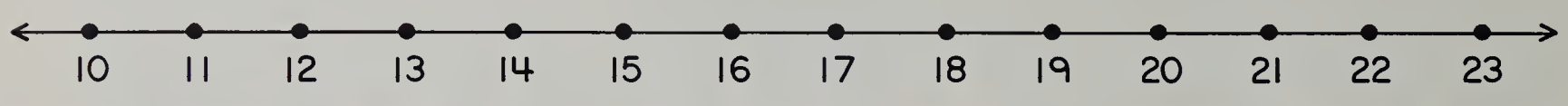
☐ ¢



1 + 1 = 2

3 + 2 = ☐

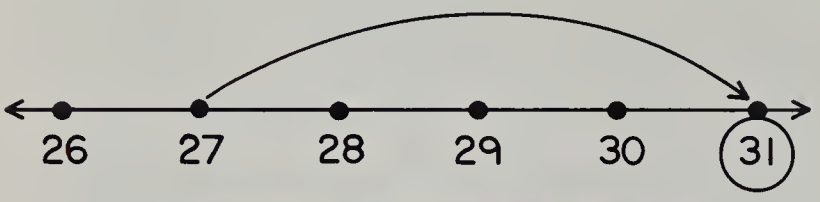
5 + 3 = ☐



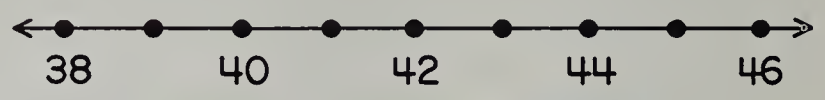
10 + 1 = ☐

12 + 2 = ☐

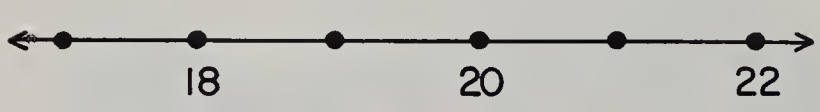
18 + 3 = ☐



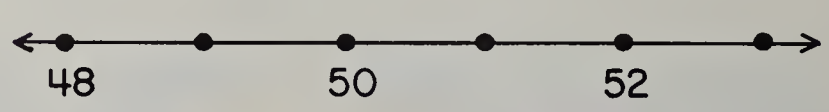
27 + ☐ = ☐



38 + 7 = ☐



17 + 4 = ☐



49 + ☐ = 53

1 + ☐ = 2

1 + ☐ = 11

1 + ☐ = 4

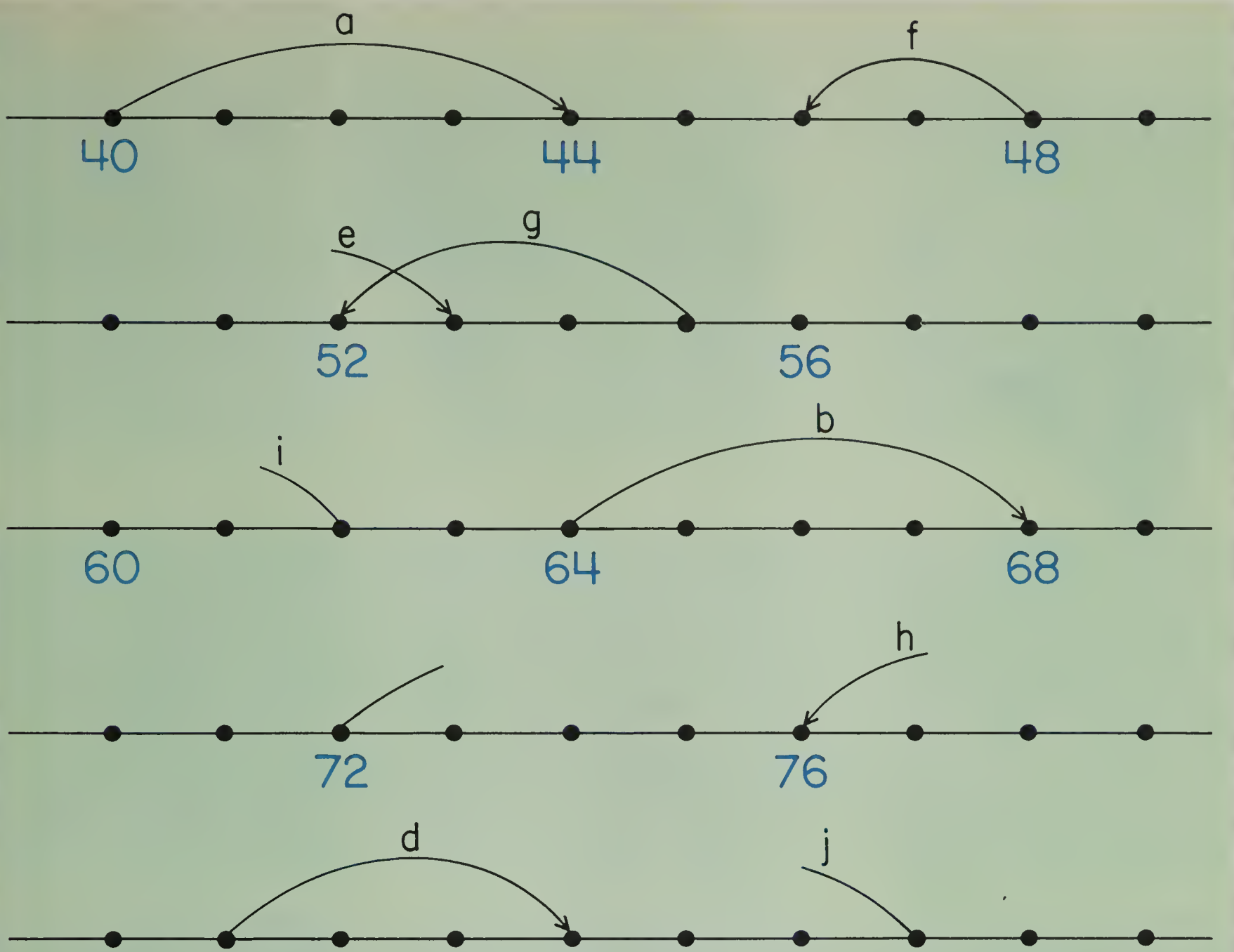
☐ + 6 = 13

☐ + 5 = 8

13 + ☐ = 18

☐ coins

☐ ¢



The time is –

8:30

a 40 + 4 = 44

b + = ☐

c 72 + 4 = ☐

d + = ☐

e + 3 = ☐

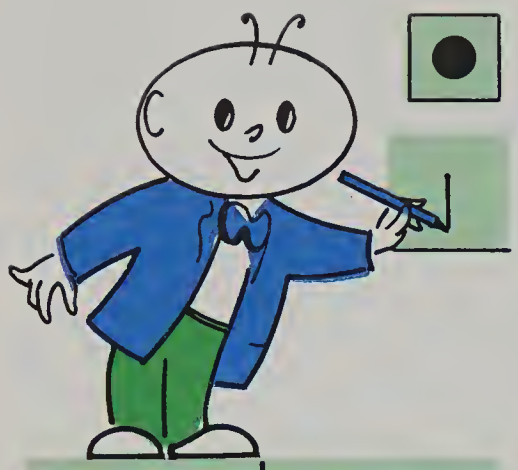
f 48 – 2 = ☐

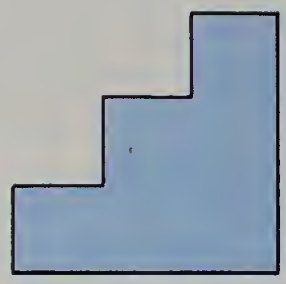
g – = ☐

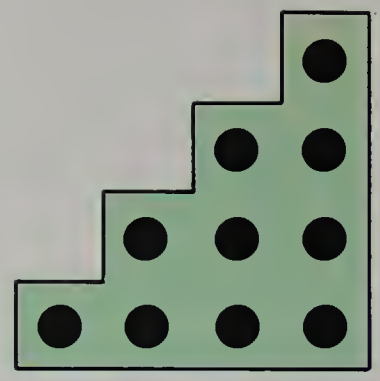
h 79 – = ☐

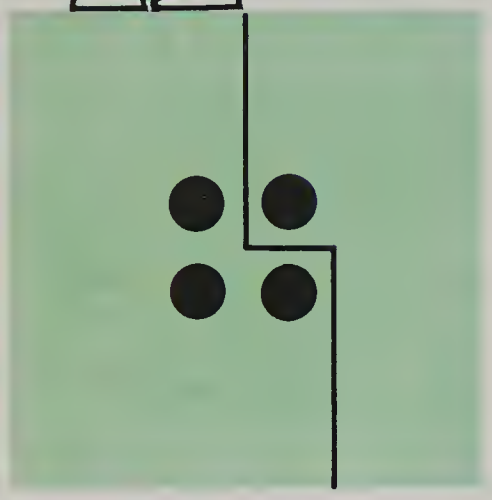
i – 2 = ☐

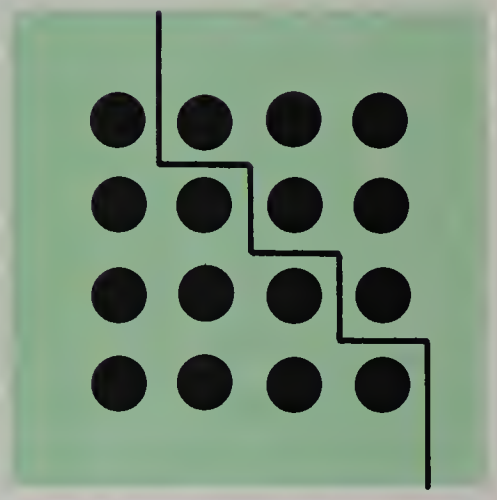
j – = 83











3 + 1 = ___

1 + 3 = ___

4 - 1 = ___

4 - 3 = ___

___ + ___ = ___

___ + ___ = ___

___ - ___ = ___

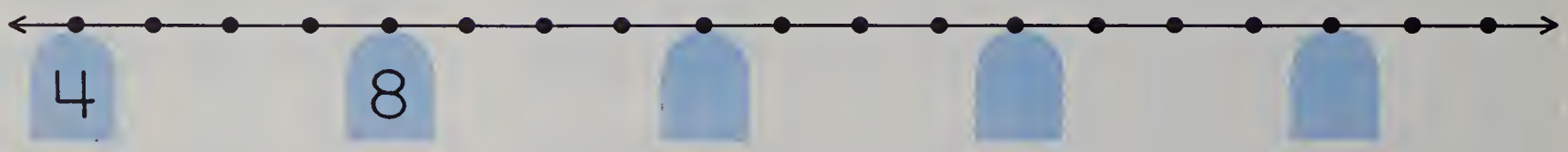
___ - ___ = ___

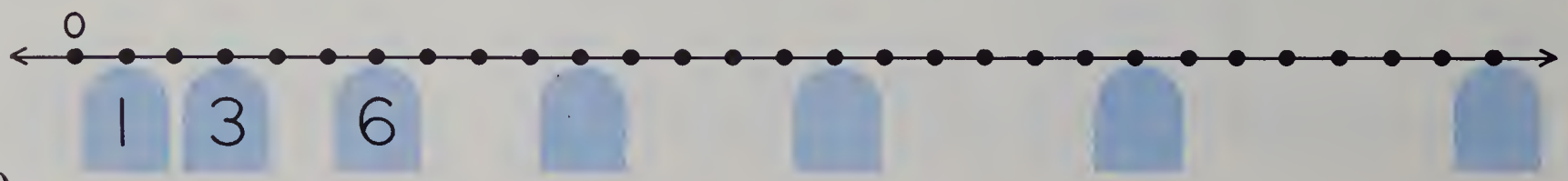
___ + ___ = ___

___ + ___ = ___

___ - ___ = ___

___ - ___ = ___





7 + 3 = 10			
2 = 6	4		
19	= 20		
10	16	6	

9 - 4 = 5			
	15 - 15		
17 -		8	
	- 0	0	

8 = 16 - 8			
	25 - 10		
18	= 21		
+	= 0		

2		1	4
3	3		6
5	4	1	
10	10	10	10

8		9		1
1	5	3	8	
	5		7	2
15	15	15	15	15

2		5	3
	1	7	
6	2		1
12	12	12	12

5	3		3	6
5	2	9		7
		9	6	
20	20	20	20	20

The time is :

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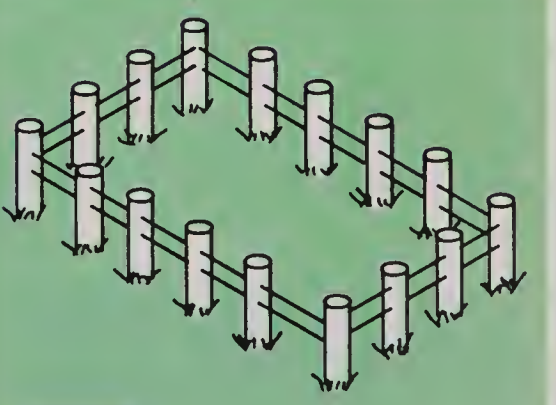

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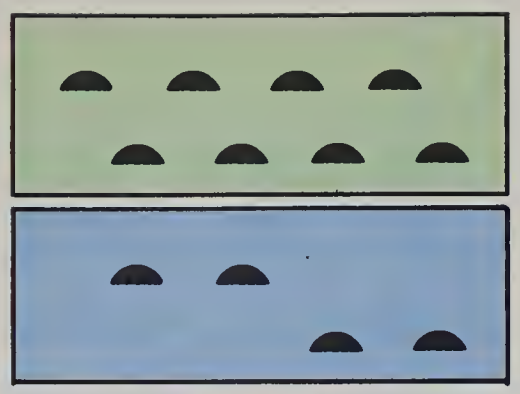
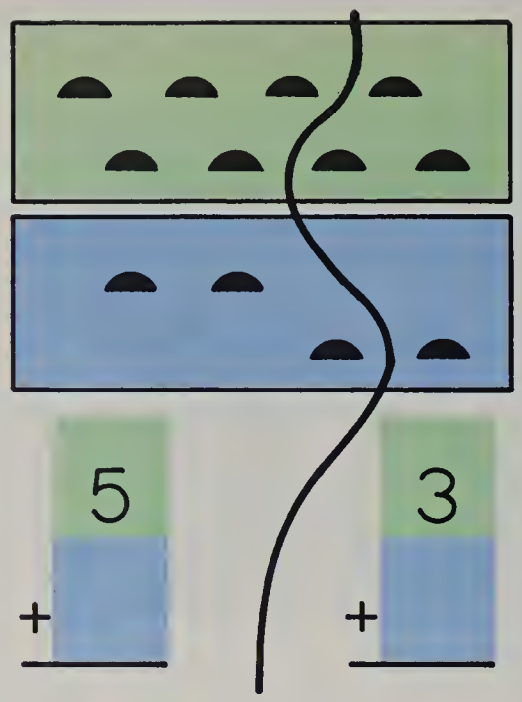


8

\+ ____

12

8 + ____ = ____

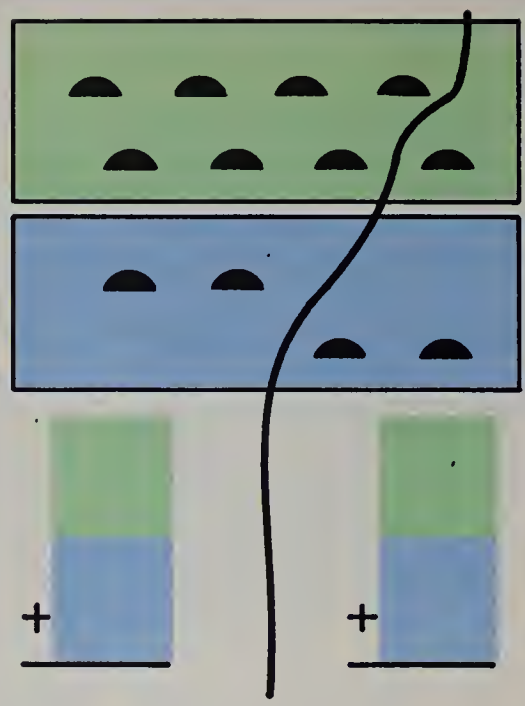


5 3

\+ ____ \+ ____

8 4

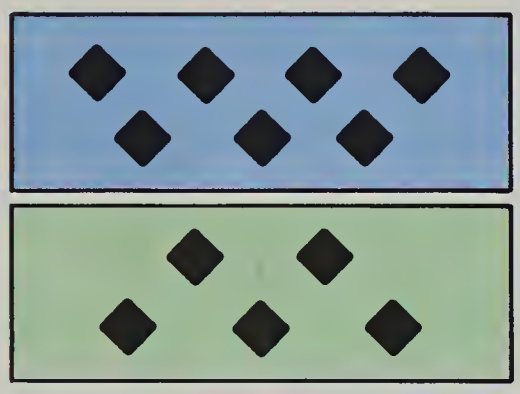
8 + 4 = ____



\+ ____ \+ ____

____ ____

\+ ____ = ____



\+ ____

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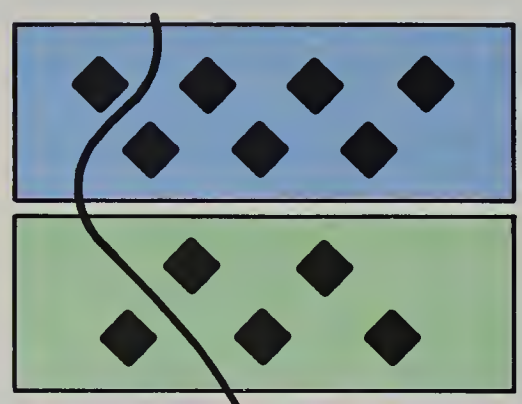
\+ ____ = ____



\+ ____ \+ ____

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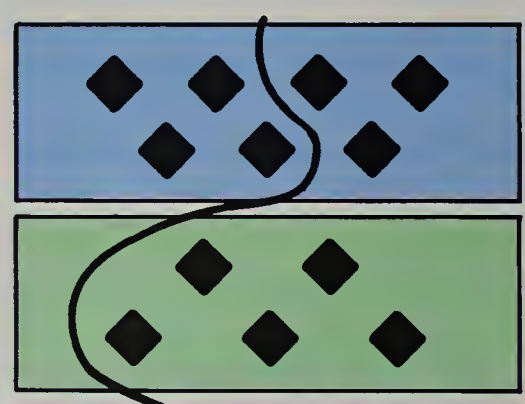

\+ ____ \+ ____

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\+ ____ = ____

\+ ____ = 12

12 = \+ ____

\+ ____ = 12

12 = \+ ____

\+ ____ = 12

\+ ____ = 12

8

+ ____

15

____ ____

8 + ____ = ____

5

+ ____ + ____

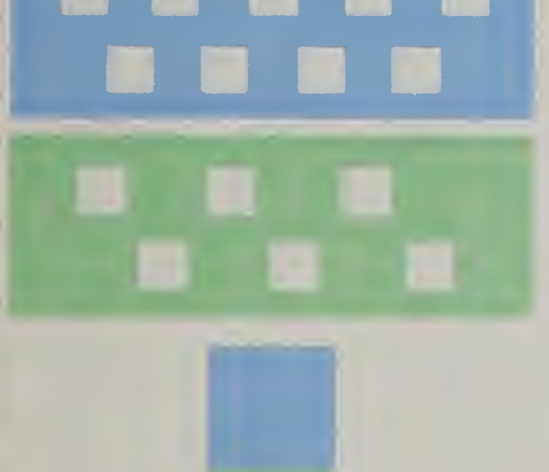
____ ____

10 + ____ = ____

+ ____ + ____

____ ____

____ + ____ = ____



+ ____

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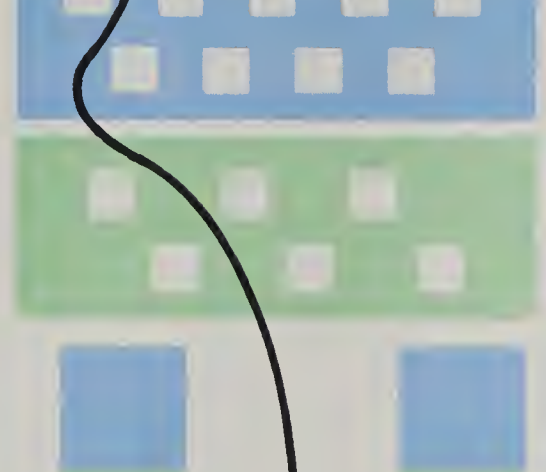
+ ____ = ____



+ ____ + ____

____ ____

+ ____ = ____

+ ____ + ____

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+ ____ = ____

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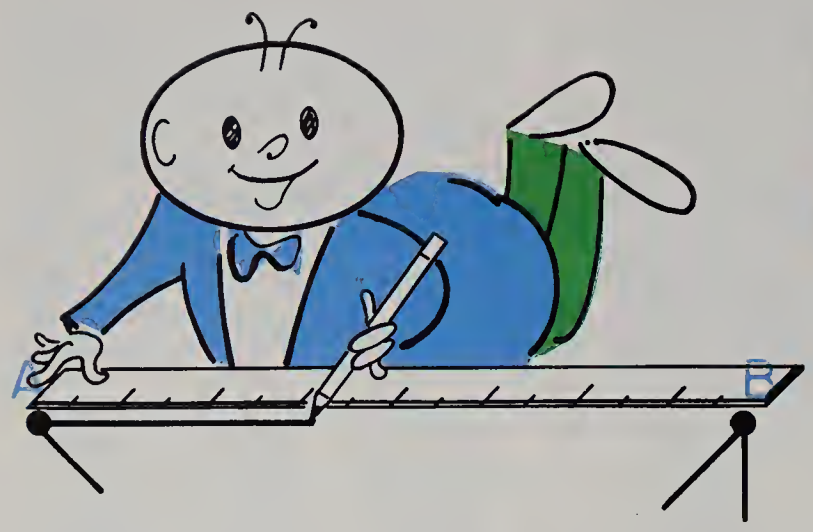
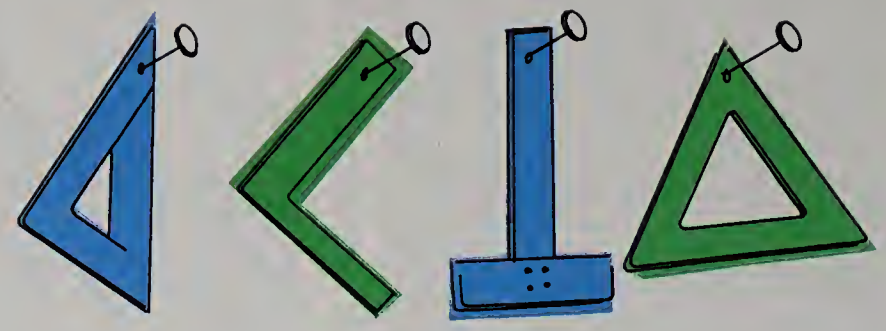
15 = + ____

+ ____ = 15





E J F

I K

D C H L G

AB, BC, CD, DA, AC, BD

EF, FG, GH, HE, IJ, JK, KL, LI

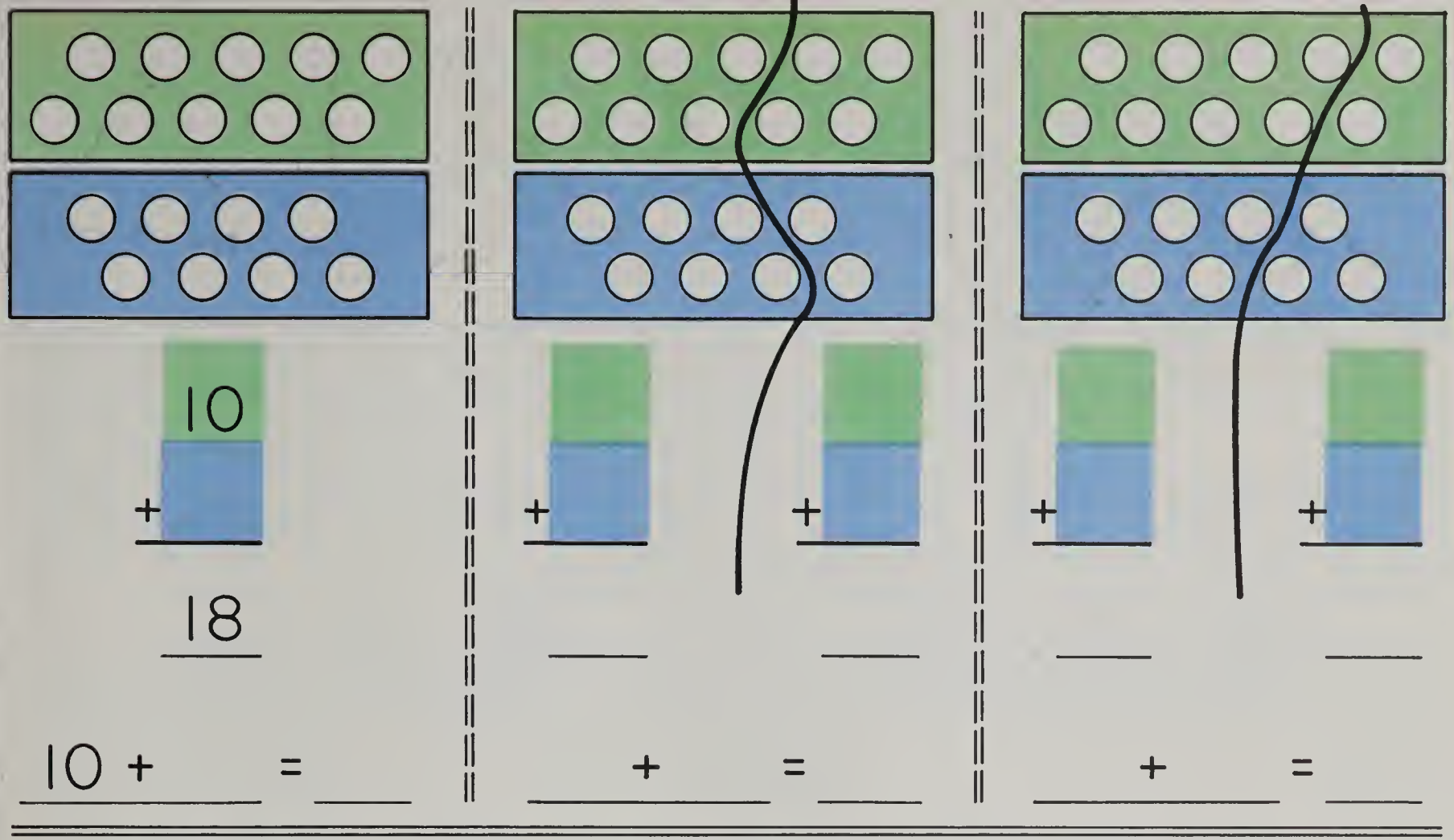
A F B I N J

E G M O

D H C L P K

AB, BC, CD, DA, EG, FH

IJ, JK, KL, LI, MK, NL, OI, PJ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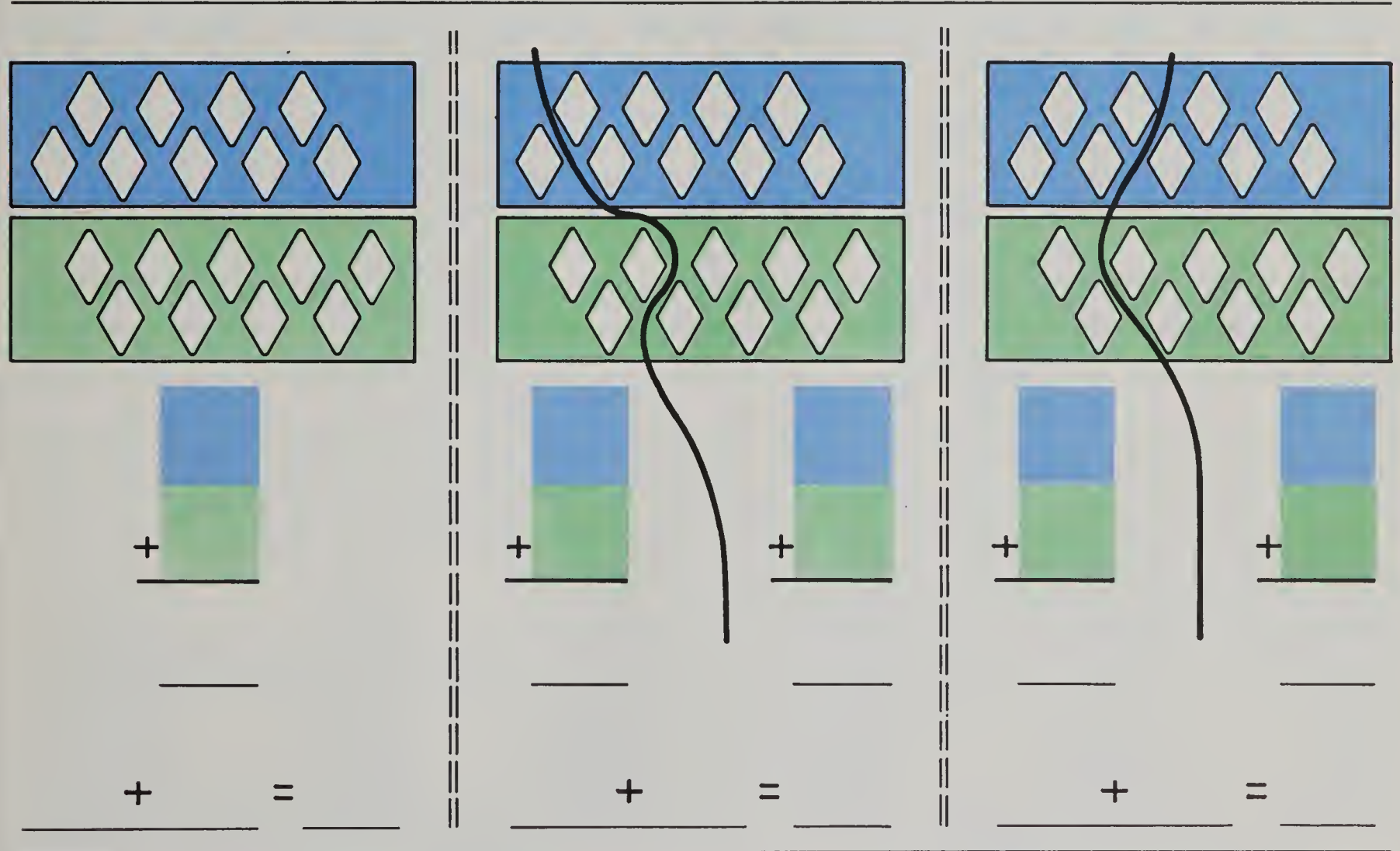
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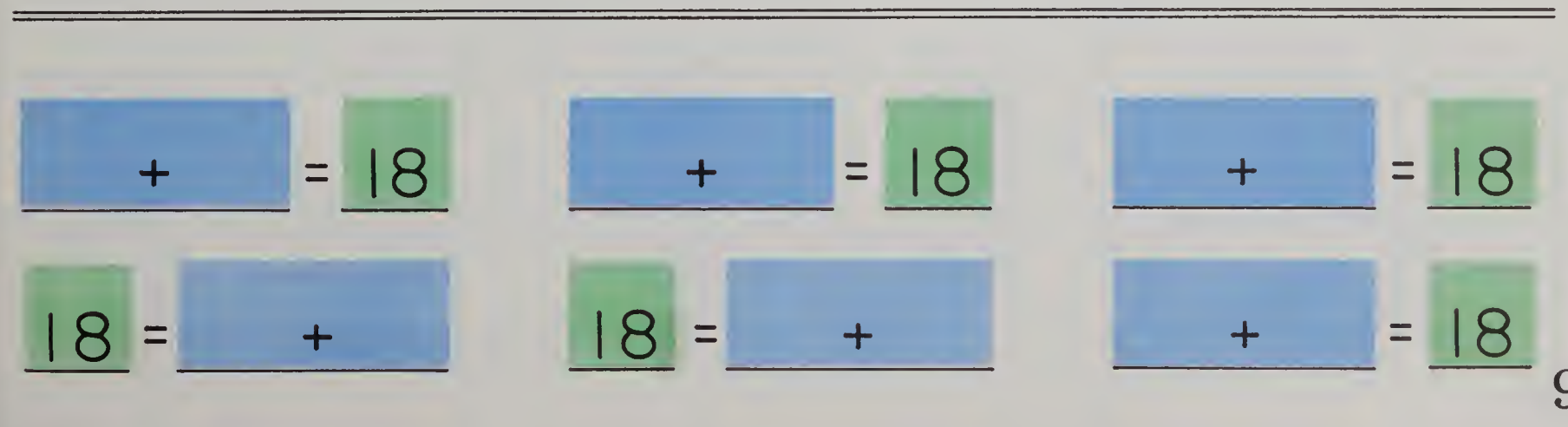
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a

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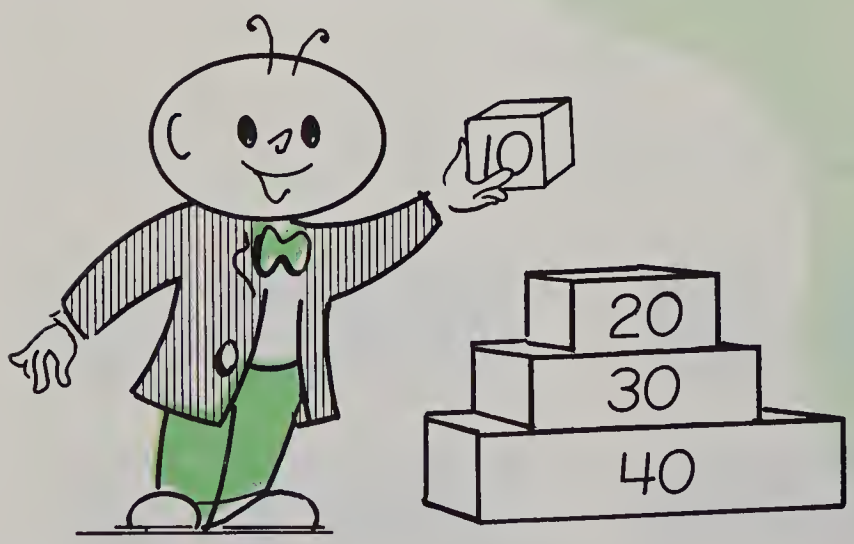
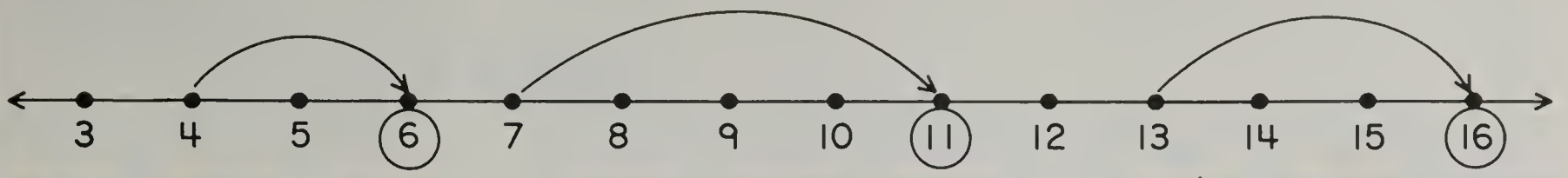
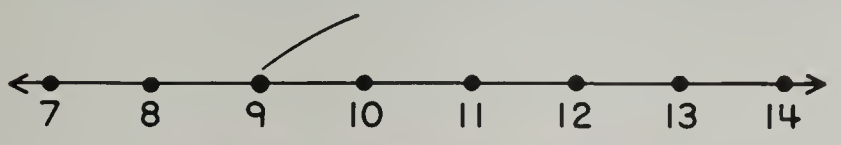




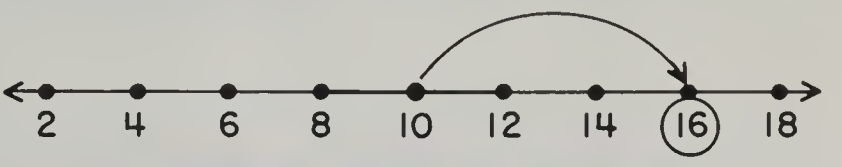
4 + ☐ = ☐

7 + ☐ = ☐

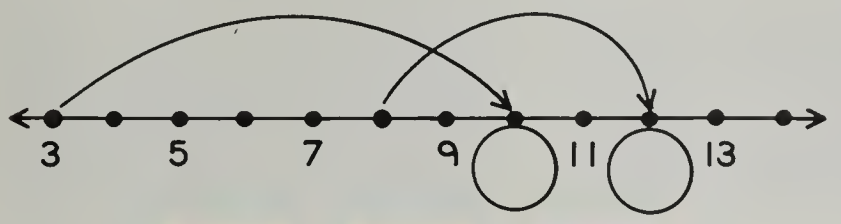
☐ + ☐ = ☐



9 + 4 = ☐

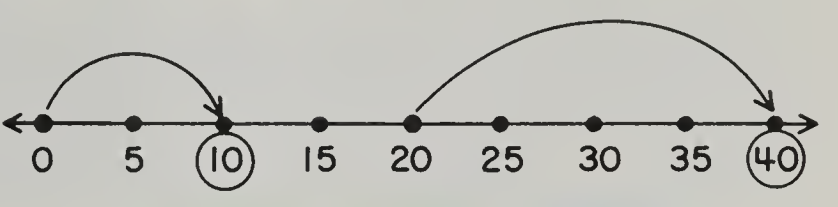


10 + ☐ = 16



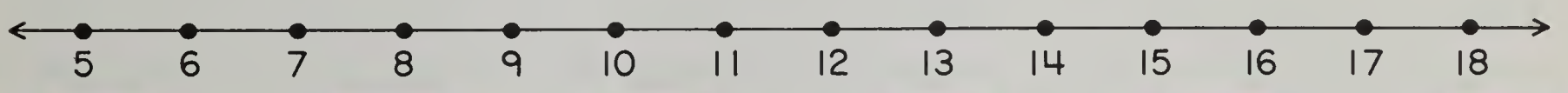
3 + ☐ = ☐

☐ + ☐ = ☐



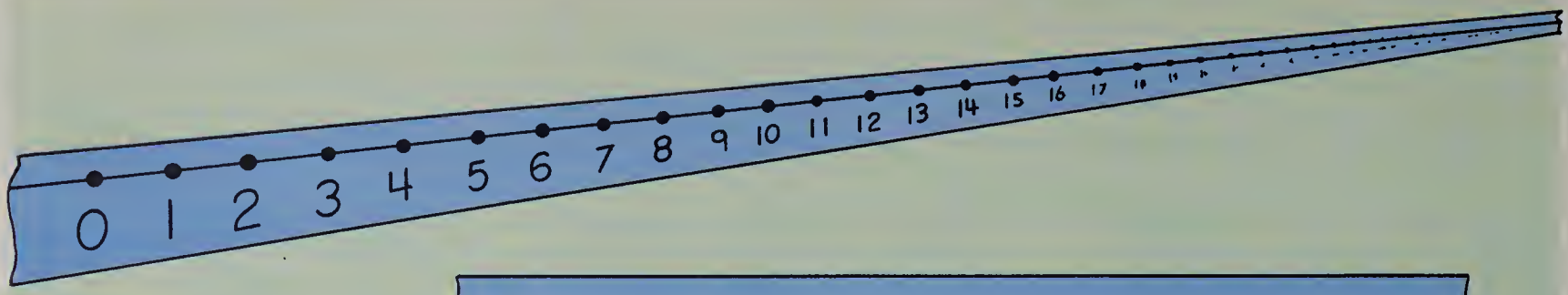
0 + ☐ = ☐

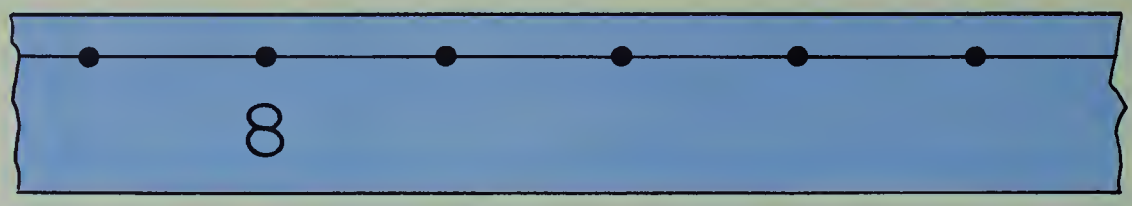
20 + ☐ = ☐



$\begin{array}{r} 5 \\ +\ 6 \\ \hline \square \end{array}$ $\begin{array}{r} \square \\ +\ 5 \\ \hline 11 \end{array}$ $\begin{array}{r} 8 \\ +\ 5 \\ \hline \square \end{array}$ $\begin{array}{r} \square \\ +\ 8 \\ \hline 13 \end{array}$ $\begin{array}{r} 9 \\ +\ \square \\ \hline 15 \end{array}$ $\begin{array}{r} 6 \\ +\ 9 \\ \hline \square \end{array}$

$\begin{array}{r} \square \\ +\ 10 \\ \hline 17 \end{array}$ $\begin{array}{r} \square \\ +\ 7 \\ \hline 17 \end{array}$ $\begin{array}{r} 5 \\ +\ \square \\ \hline 18 \end{array}$ $\begin{array}{r} 13 \\ +\ 5 \\ \hline \square \end{array}$ $\begin{array}{r} 14 \\ +\ 6 \\ \hline \square \end{array}$ $\begin{array}{r} 6 \\ +\ \square \\ \hline 20 \end{array}$


0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17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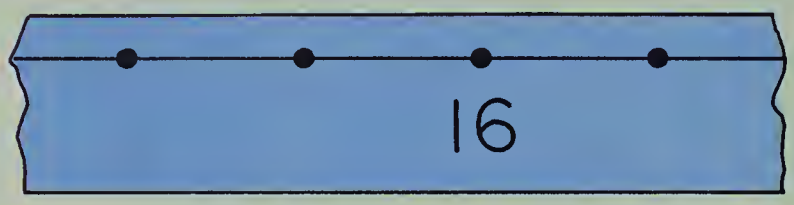
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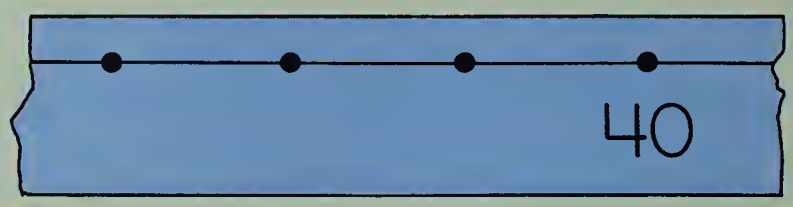
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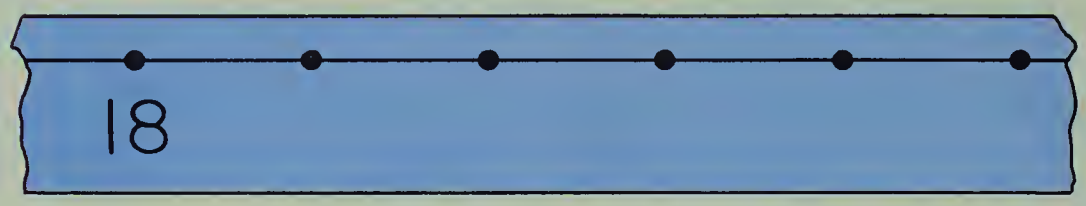
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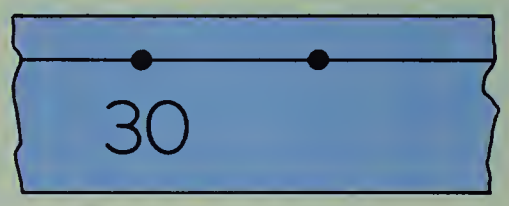
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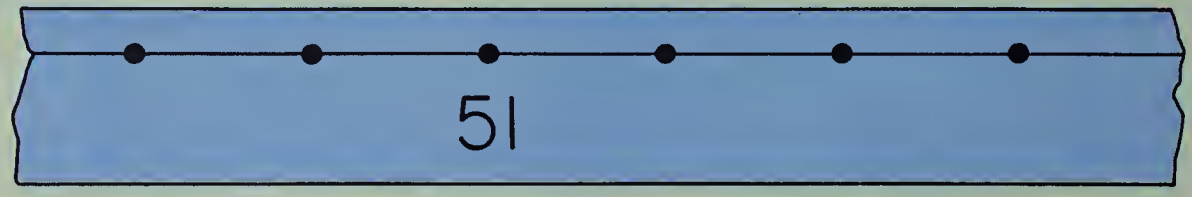
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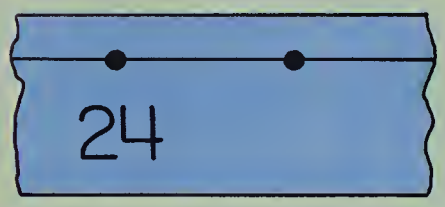
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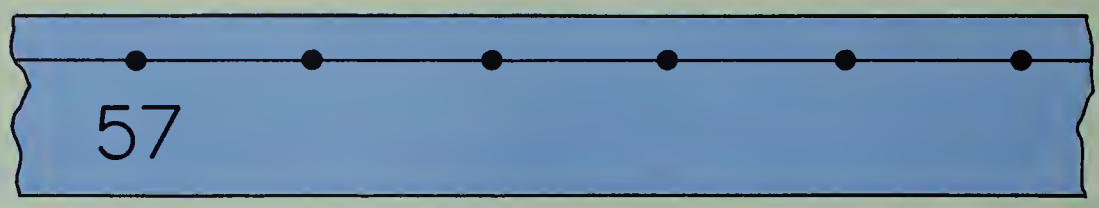
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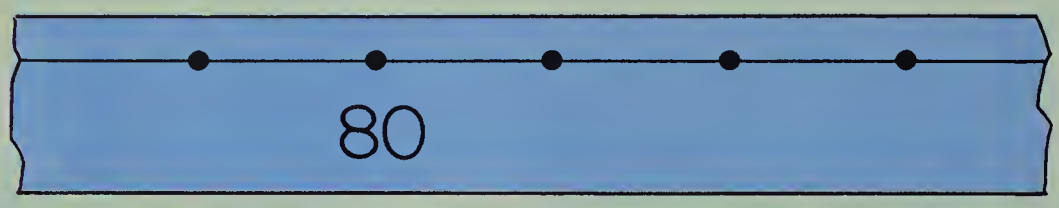
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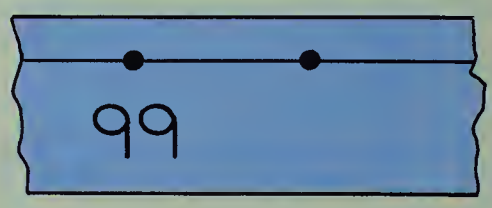
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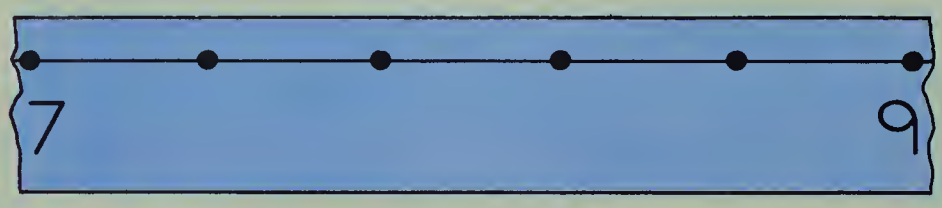
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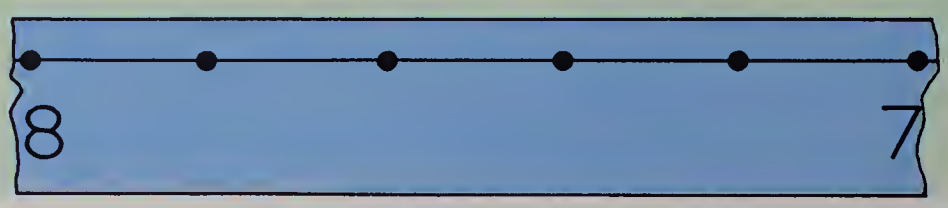
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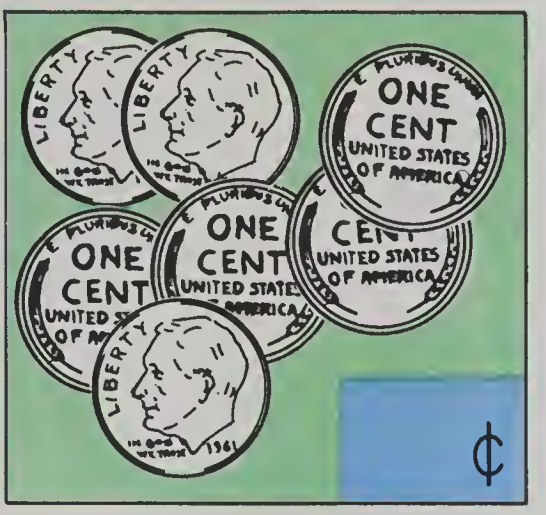
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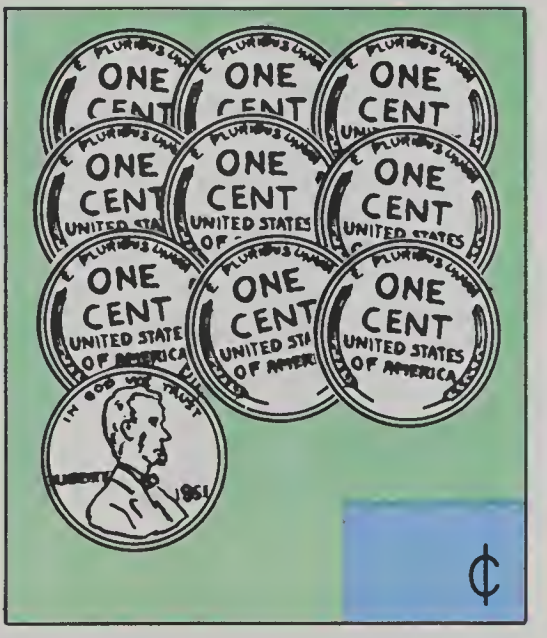
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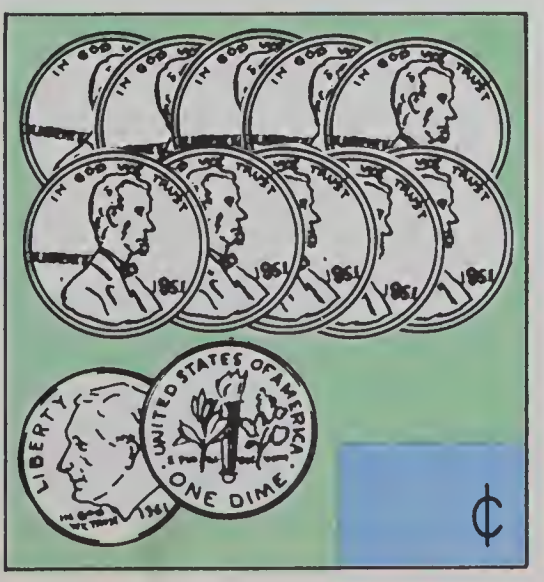
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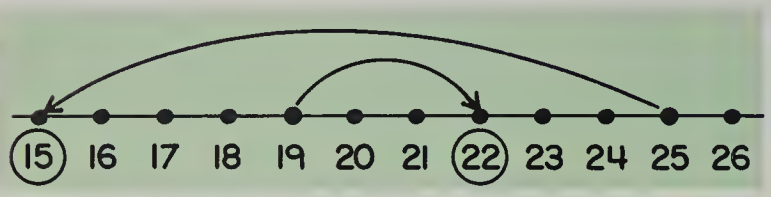
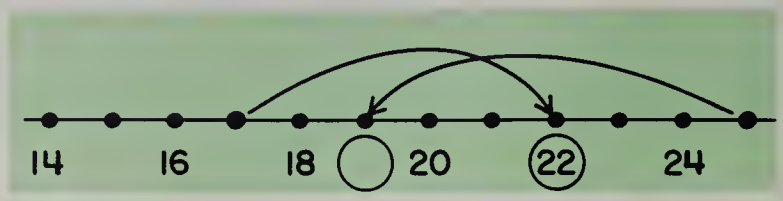


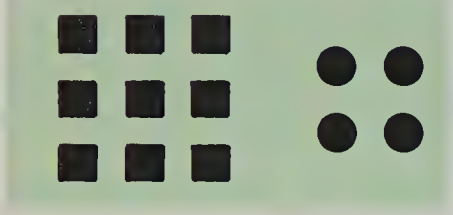


19 = 22

25 = 15

__ + __ = __

__ − __ = __



9 + __ = __

4 + __ = __

__ − __ = __

__ − __ = __

10 + 5 = __

10 + 10 = __

12 + 10 = __

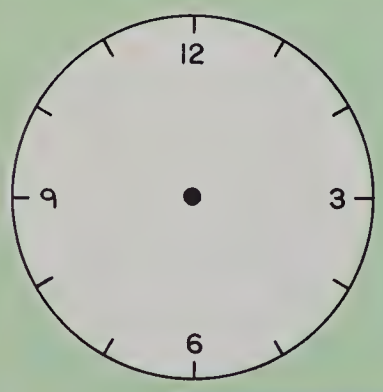
19 + 2 = __

3 + 17 = __

11 + 11 = __

18	18	18
+ 2	+10	+12

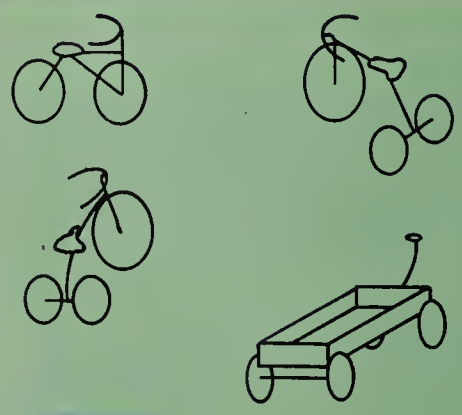
25	25	25
− 5	− 7	−10



The time is 11:30

__ coins

__ ¢



__ wheels

8	8	
3	6	

	9	
7		11
14	13	

	8	13
14	17	

1	2	3	
6		4	
	7		

	6		18
1	3		9
10			

8		6	15
3	5		
4	9		15
		15	

	1	4	10
8		4	18
	14	4	
15			

Bill Jones has two brothers and three sisters. Bill is three years old.

words

¢

cookies

0 _ 2 3 _ _ _ _ _ _

A

1, 2 → 3
6, 7 → 8
3, 4 → 5

7, 8 → _
5, 6 → _
2, 3 → _

B

5, 4 → 3
2, 1 → 0
7, 6 → 5

4, 3 → _
9, 8 → _
6, 5 → _

C

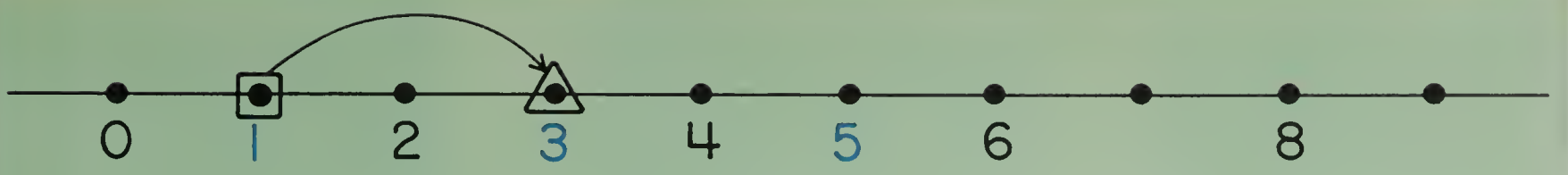
1, 3 → 2
4, 6 → 5
2, 4 → 3

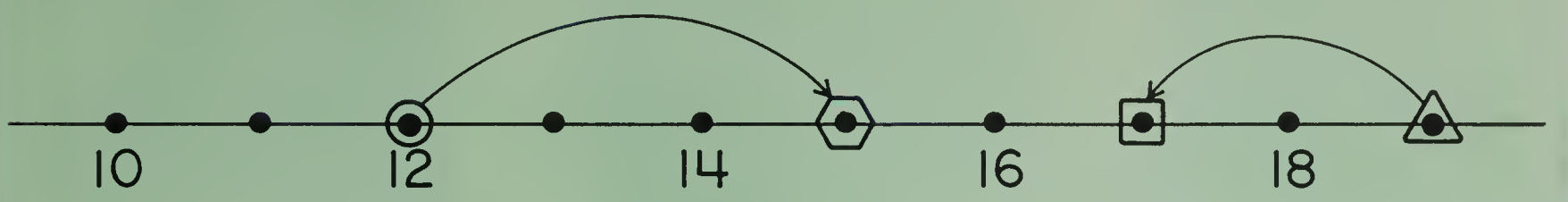
7, 9 → _
3, 5 → _
0, 2 → _

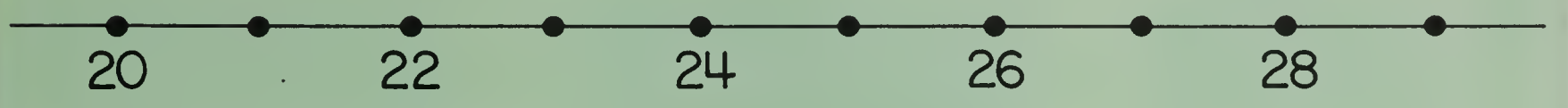
D

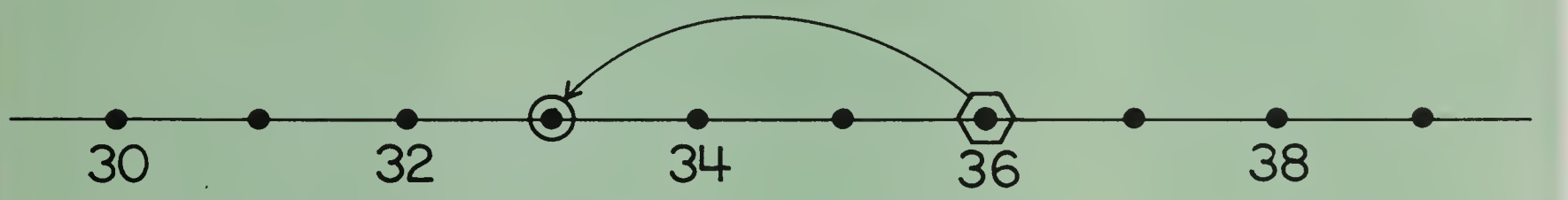
0, 2 → 4
3, 5 → 7
4, 6 → 8

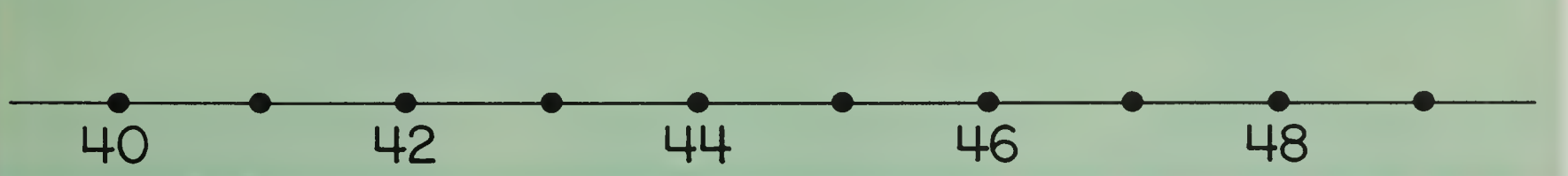
2, _ → _
5, _ → _
1, _ → _





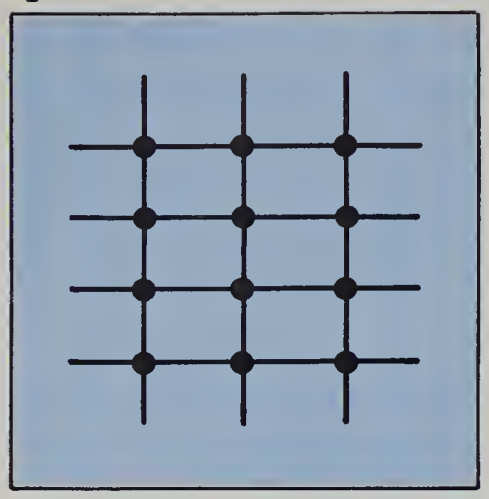




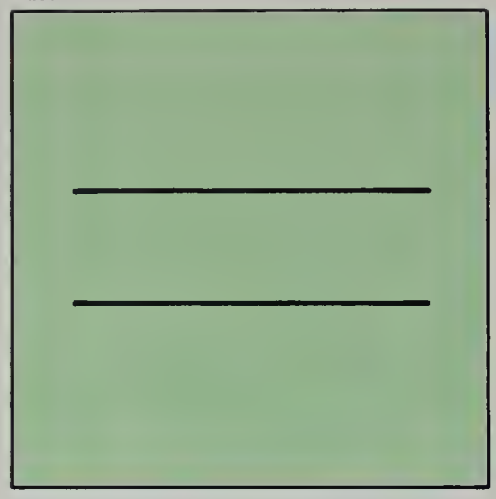


□ → △	△ → □	○ → ⬡	⬡ → ○
1 → 3	19 → 17	12 → 15	36 → 33
3 → 5	22 → 20	45 → 48	27 → 24
5 →	47 →	14 →	39 →
7 →	29 →	→ 34	→ 10
→ 13	→ 31	23 →	→ 43

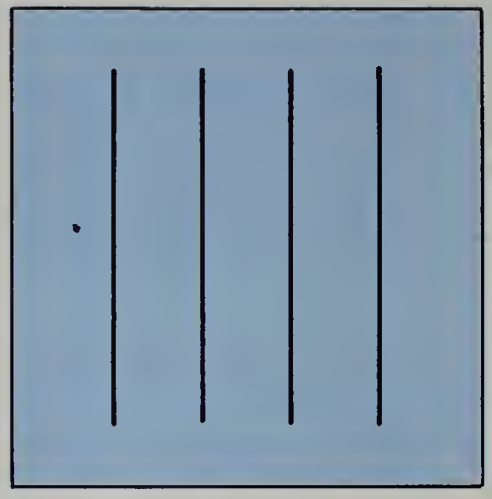
I



II

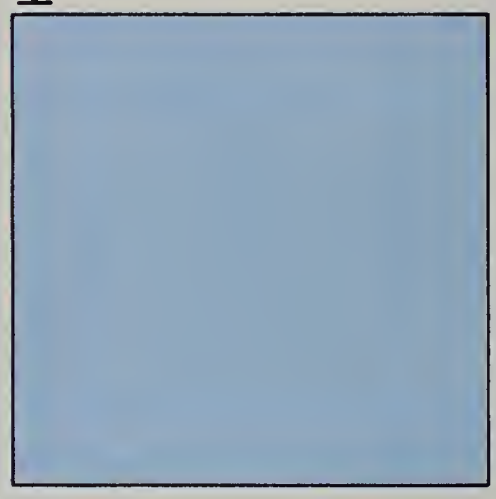


III



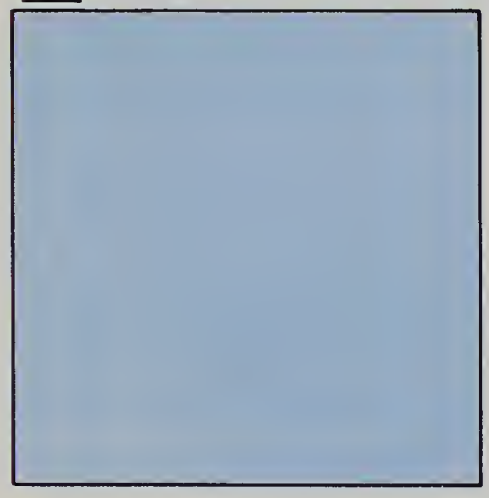
IV

V



VI

VII



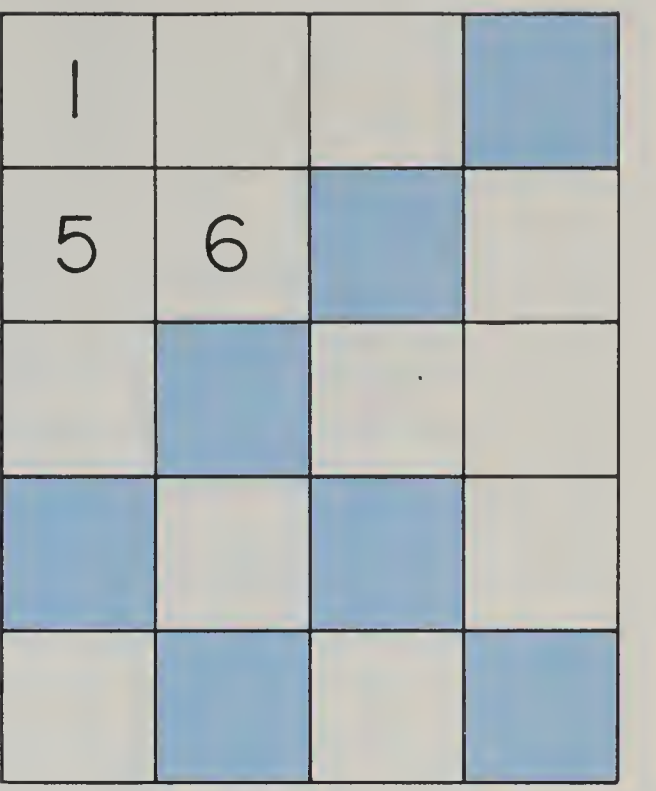
VIII

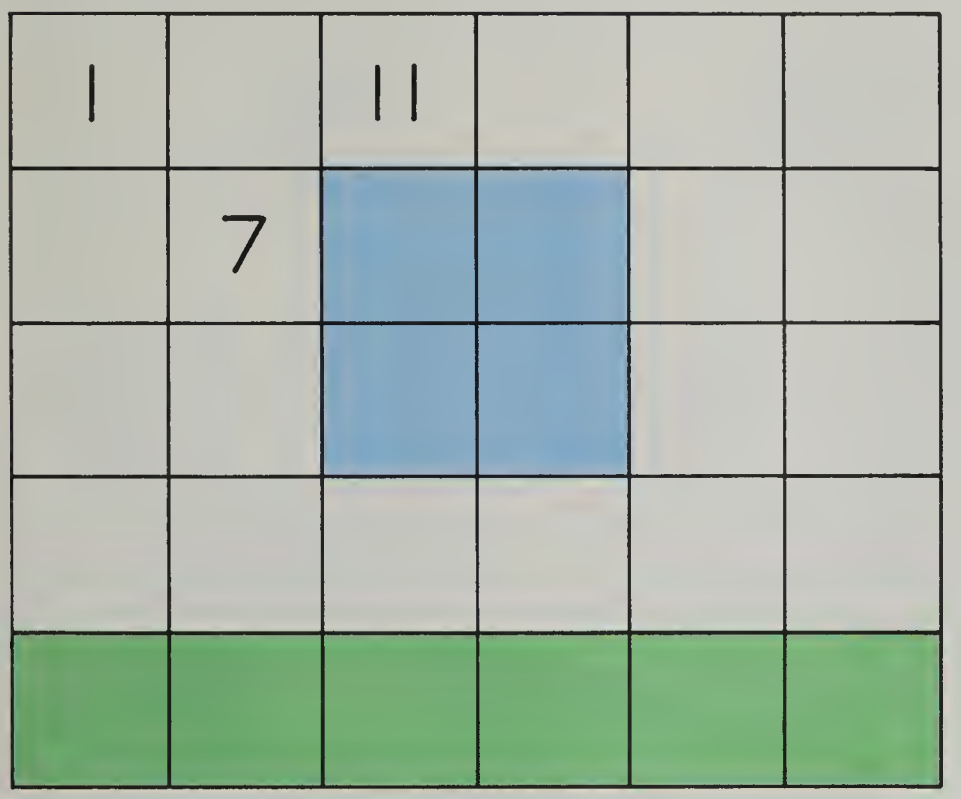
IX

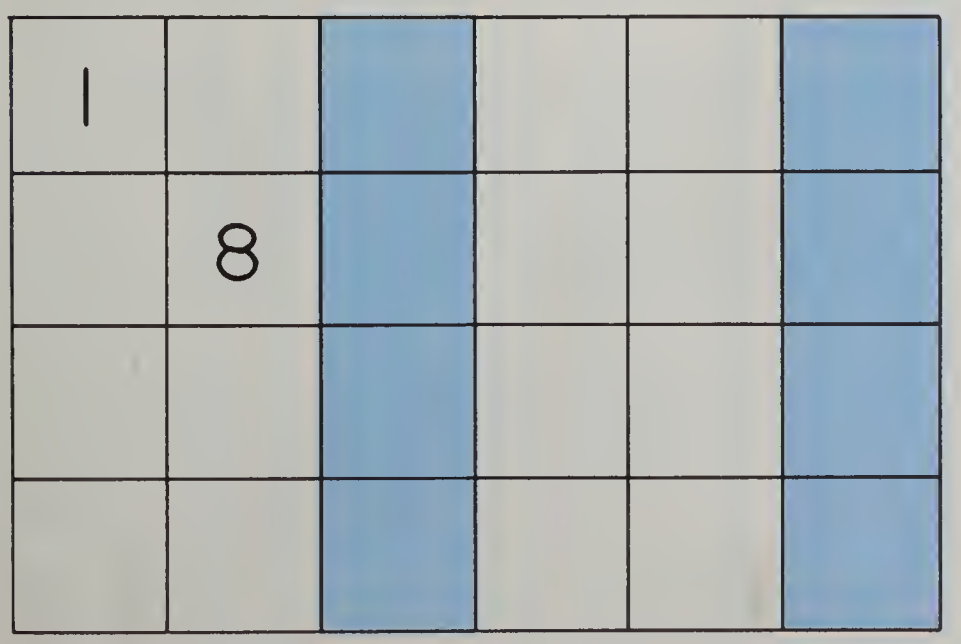
	I	II	III	IV	V	VI	VII	VIII	IX
—— Lines	4		3	3	6	0	5	2	
| Lines	3	5			2	5			4
+	12			9			10	12	16

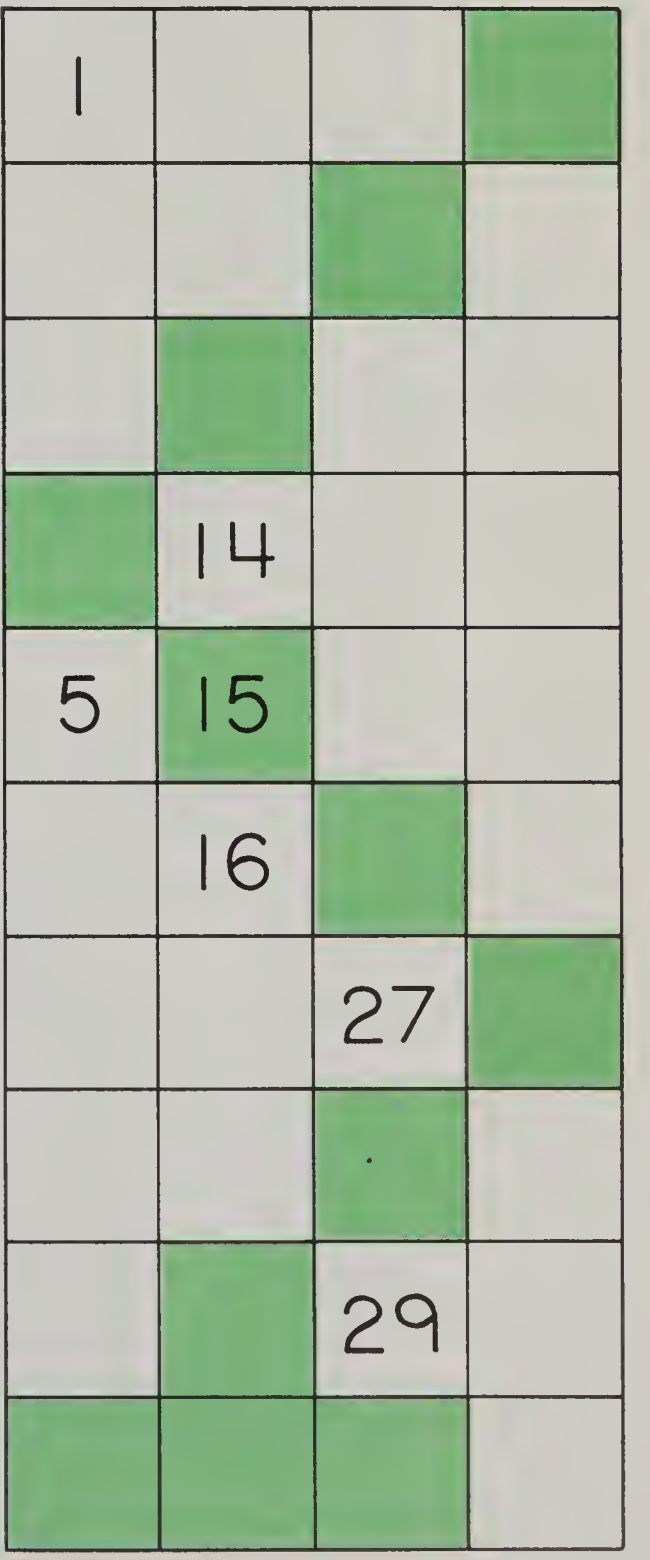
1
2

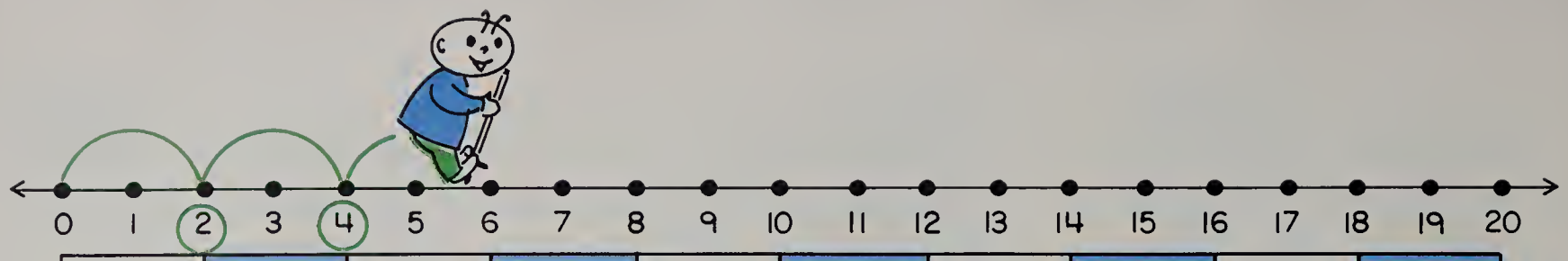
1
2


1
5
6

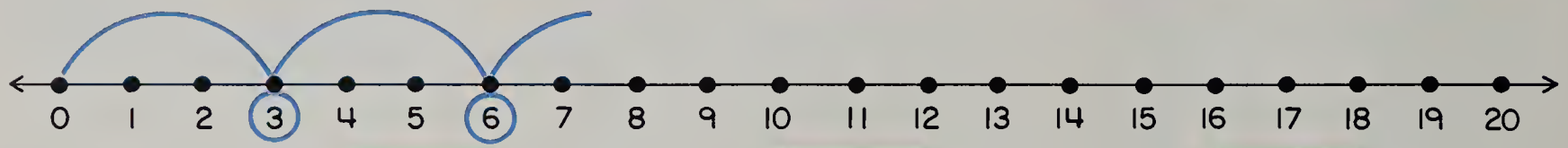

1
11
7


1
8

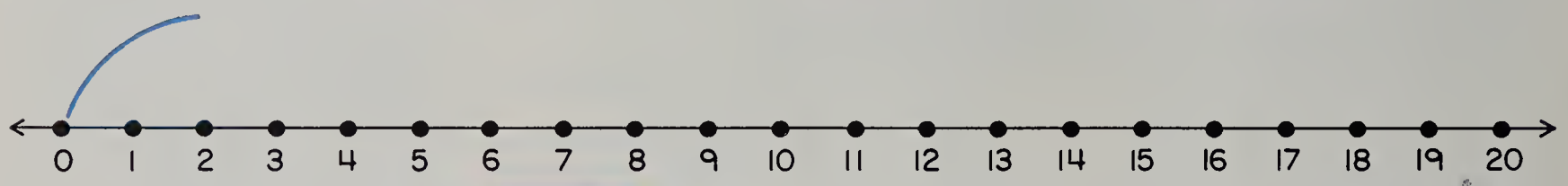

1
14
5
15
16
27
29

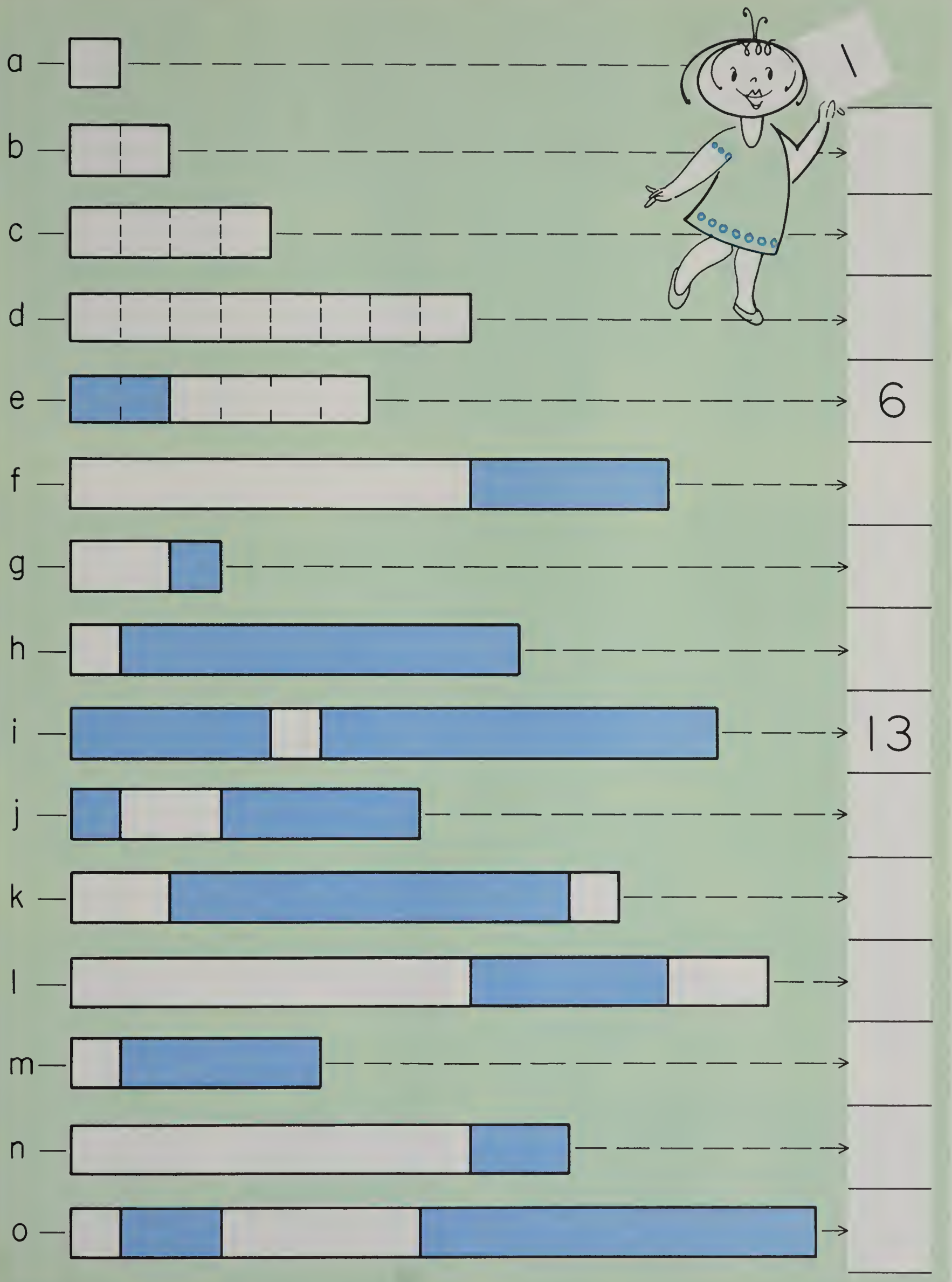

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

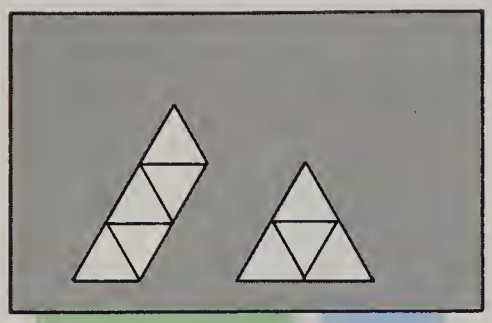
2
4


0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

3


0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20


a
b
c
d
e
f
g
h
i
j
k
l
m
n
o
6
13

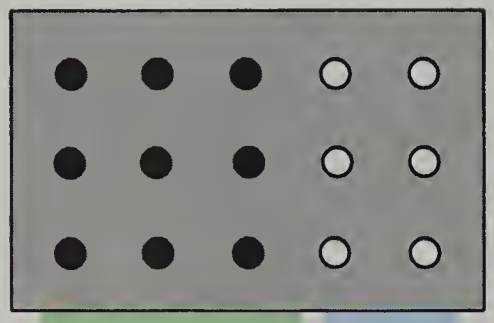


5 + 4 = ___

4 + ___ = 9

9 − ___ = ___

___ − ___ = ___

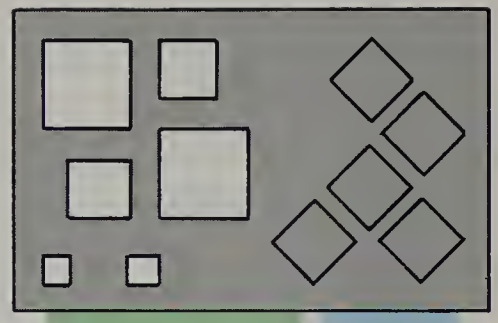


___ + ___ = ___

___ + ___ = ___

___ − ___ = ___

___ − ___ = ___

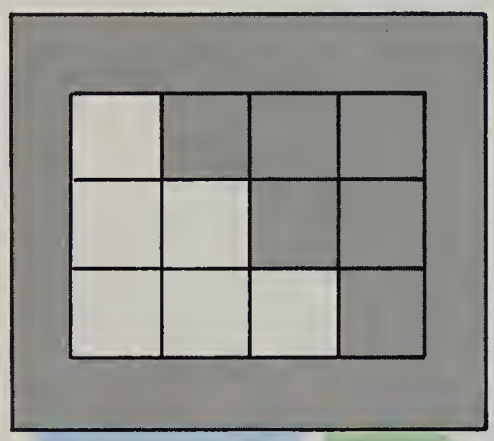


___ + ___ = ___

___ = ___

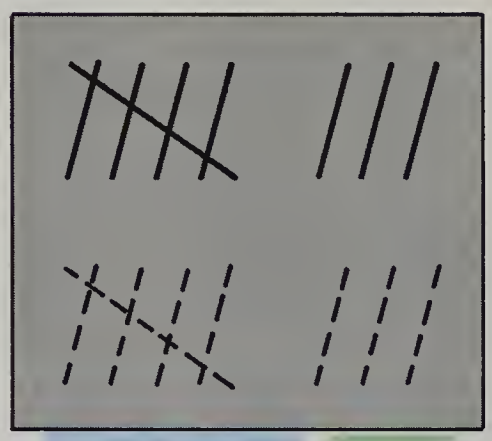
___ = ___

___ = ___



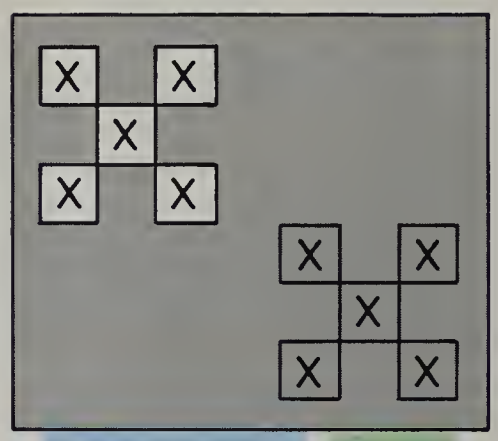
___ + ___ = ___

___ − ___ = ___



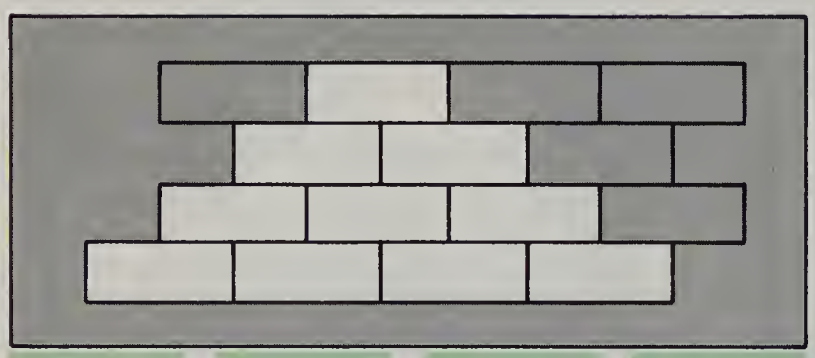
___ + ___ = ___

___ − ___ = ___



___ + ___ = ___

___ − ___ = ___

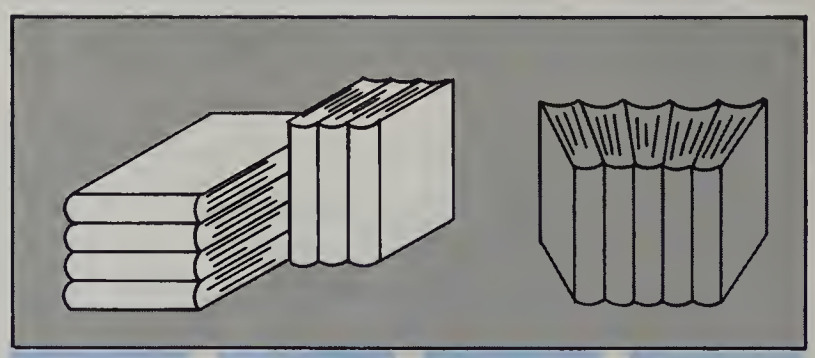


___ + ___

___ + ___

___ − ___

___ − ___

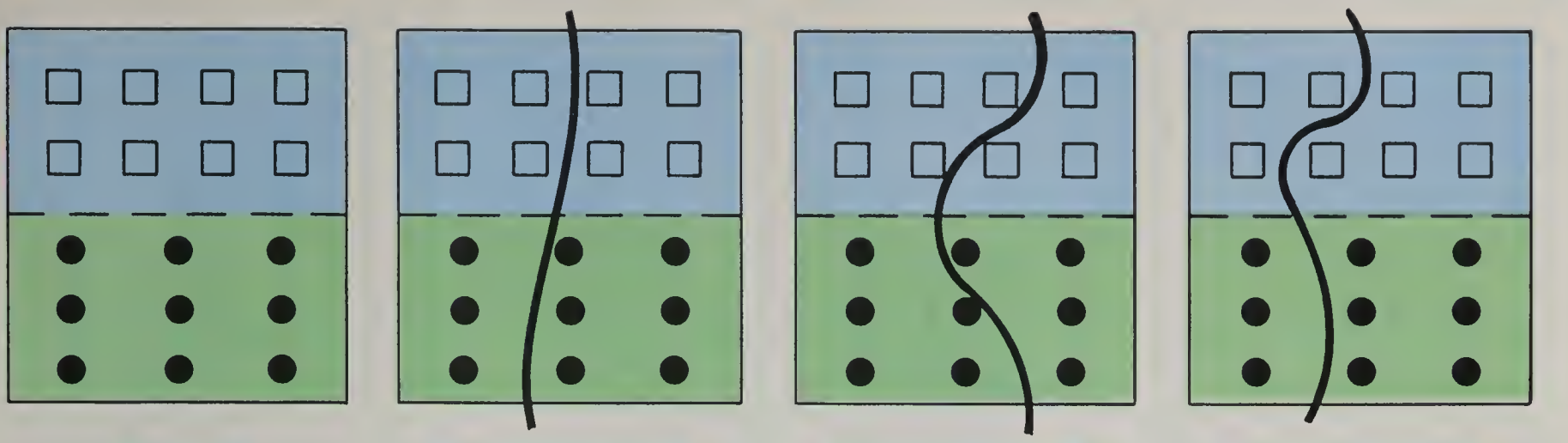


___ + ___

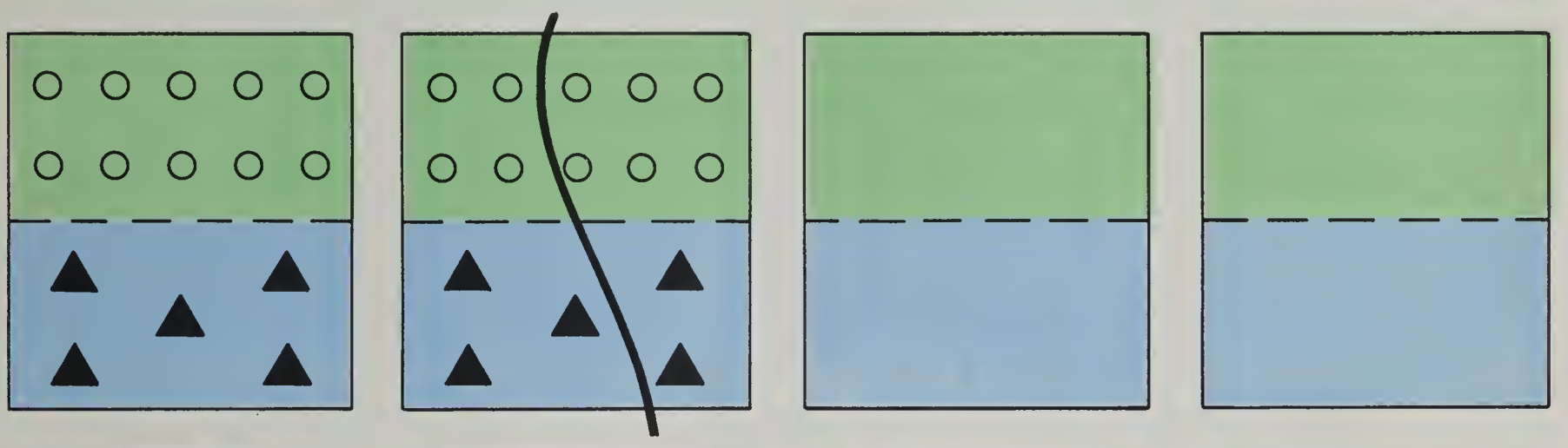
___ + ___

___ − ___

___ − ___

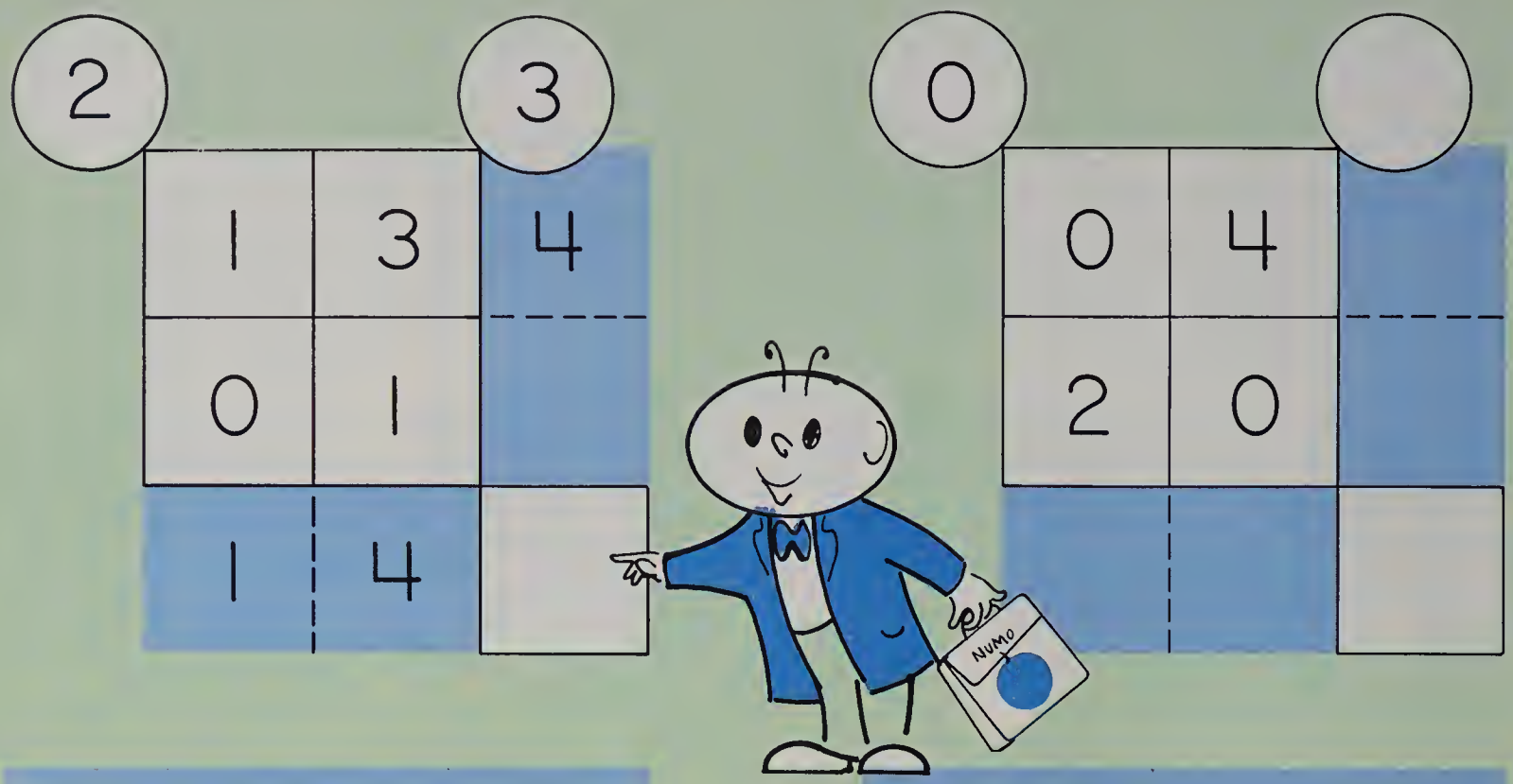


8	4 + 4	5 +	3 +
+ 9	+ 3 + 6	+ + 4	+ 3 +
	7 + 10	+ 7	6 +



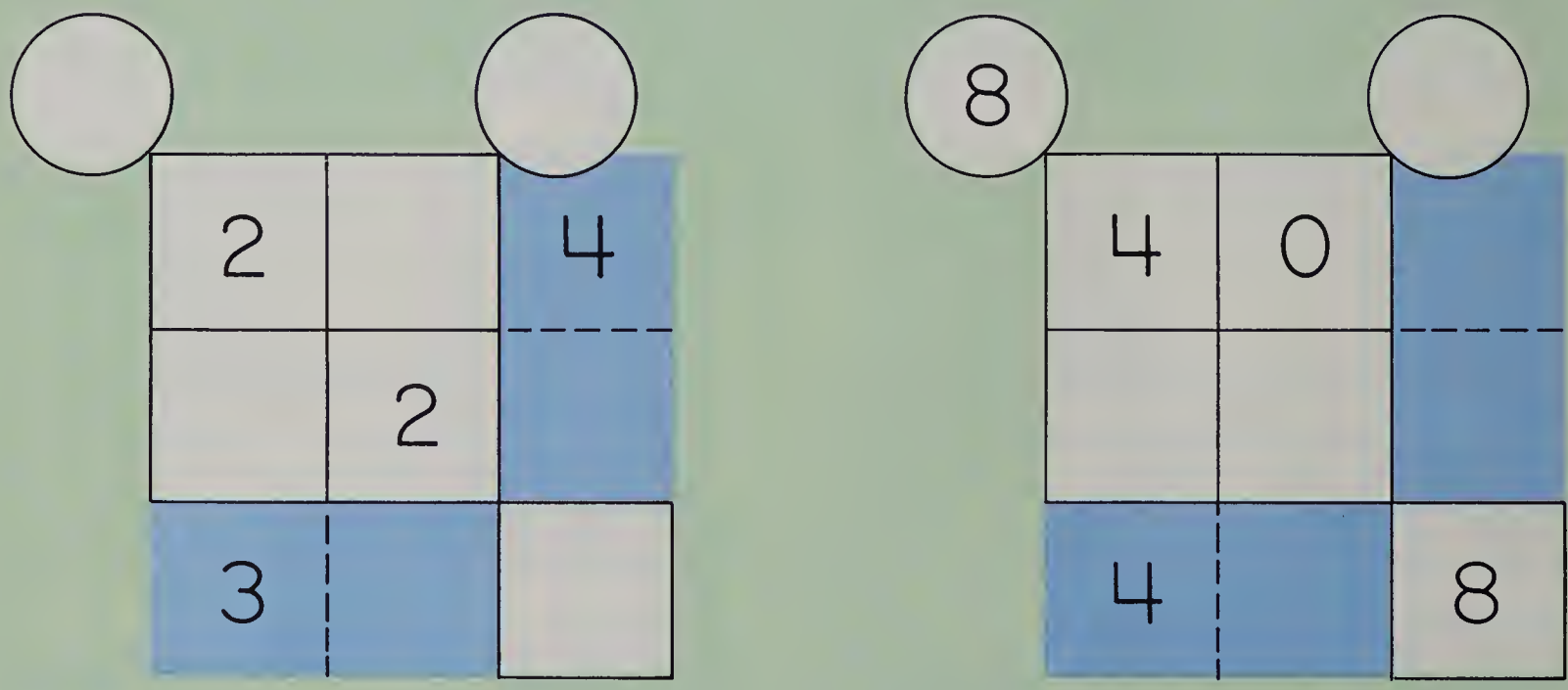
10	4 +	2 +	5 +
+ 5	+ +	+ 2 + 3	+ 4 +
	+	+ 11	9 + 6

7	4 +	+ 5	7 + 0
+ 6	+ 4 +	+ + 5	+ 3 +
	+ 5	3 +	+ 3



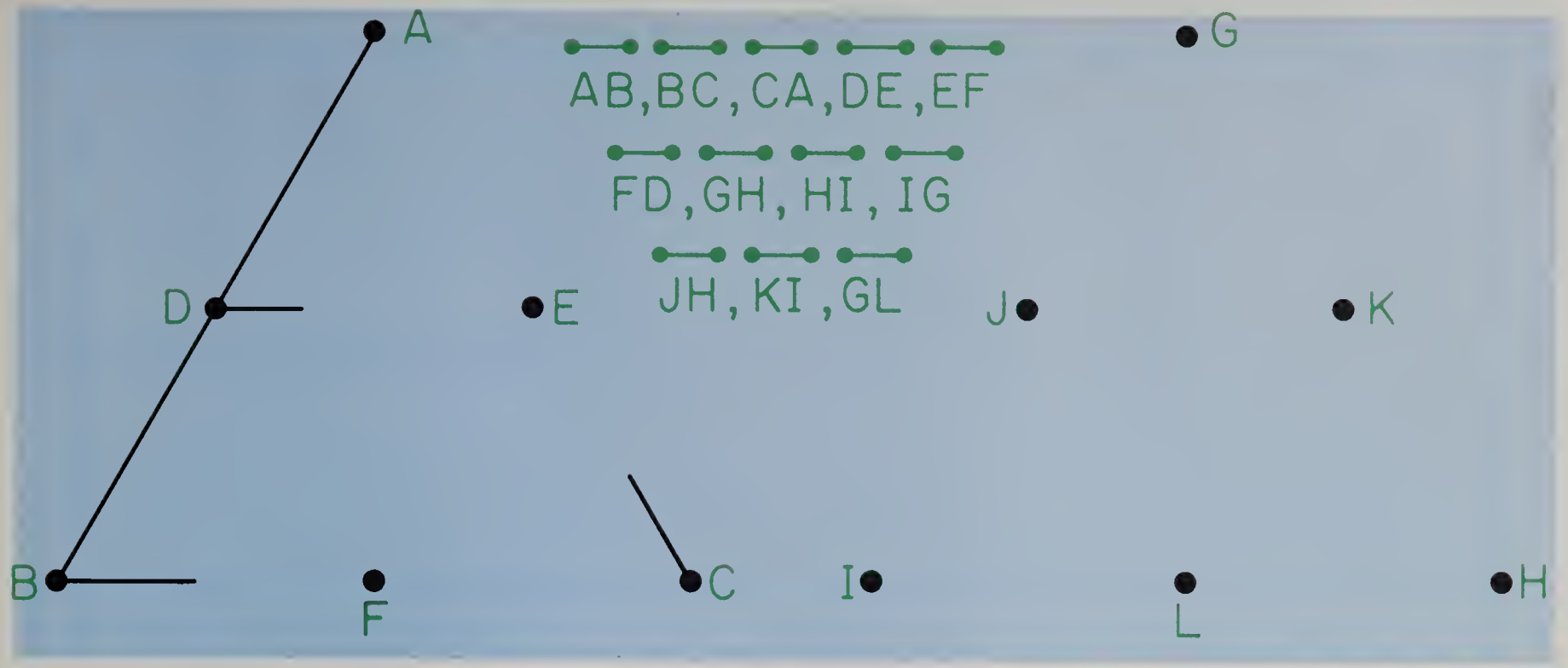
$1 + 4 = 4 + 1 = 5$

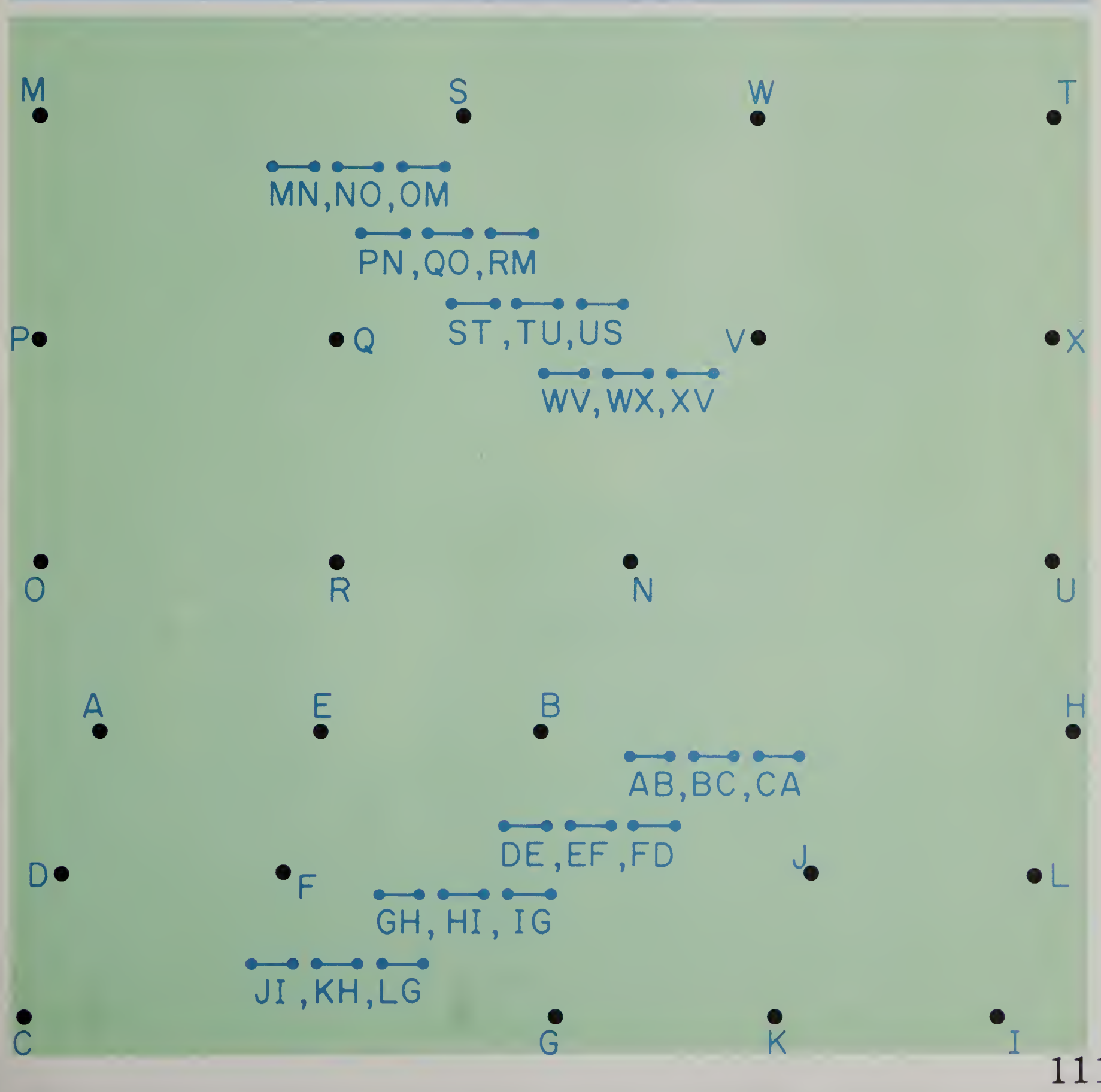
$2 + \quad = \quad + \quad = \quad$



$\quad + \quad = \quad + \quad = \quad$

$\quad + \quad = \quad$


A
G
AB,BC,CA,DE,EF
FD,GH,HI,IG
JH,KI,GL
D
E
J
K
B
F
C
I
L
H


M
S
W
T
MN,NO,OM
PN,QO,RM
P
Q
ST,TU,US
V
X
WV,WX,XV
O
R
N
U
A
E
B
H
AB,BC,CA
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GH,HI,IG
JI,KH,LG
C
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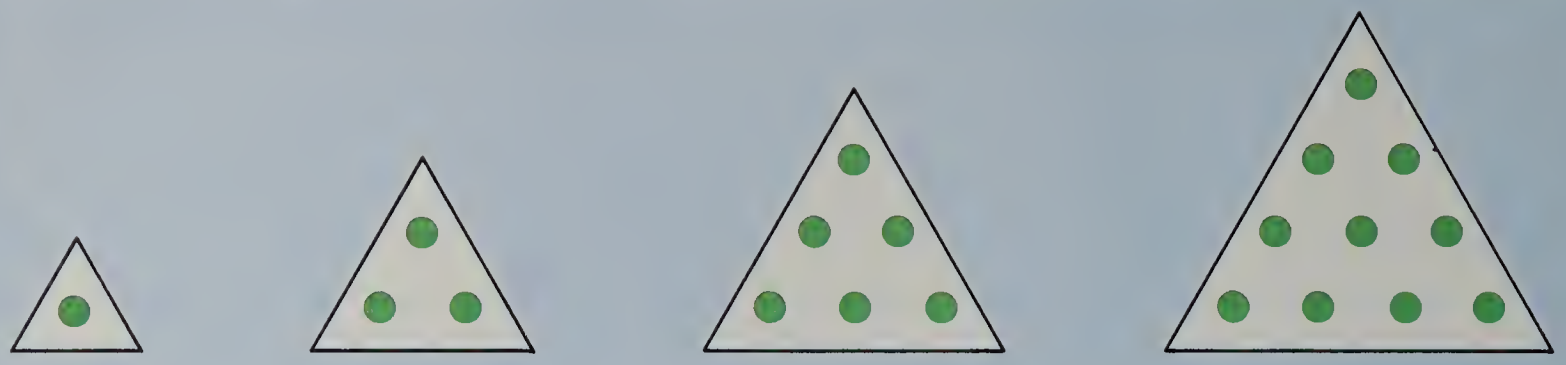
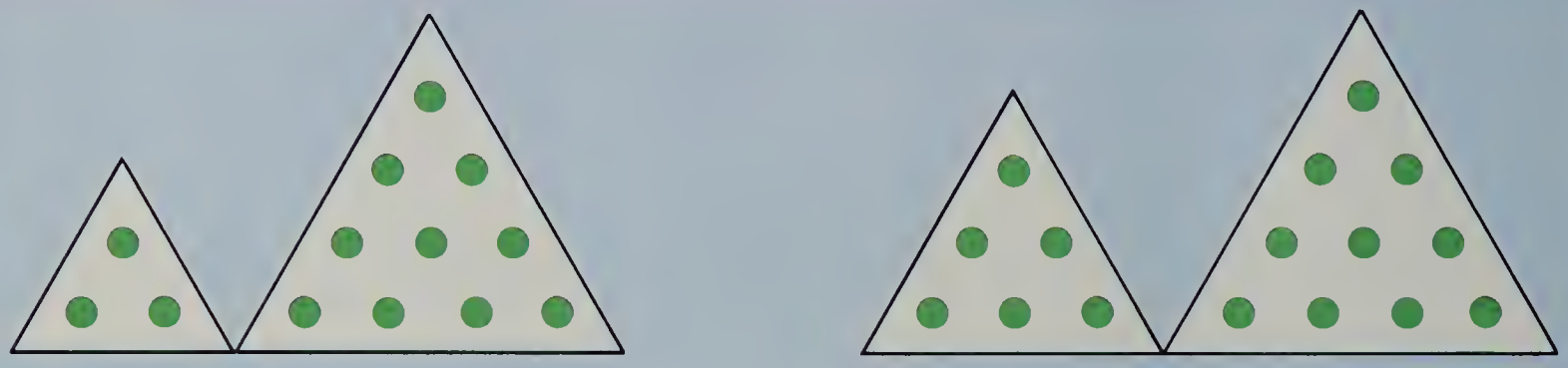
K
I



A. 1 B. ____ C. ____ D. ____



E. 3 + 10 = 13

10 + 3 = 13

13 − 3 = 10

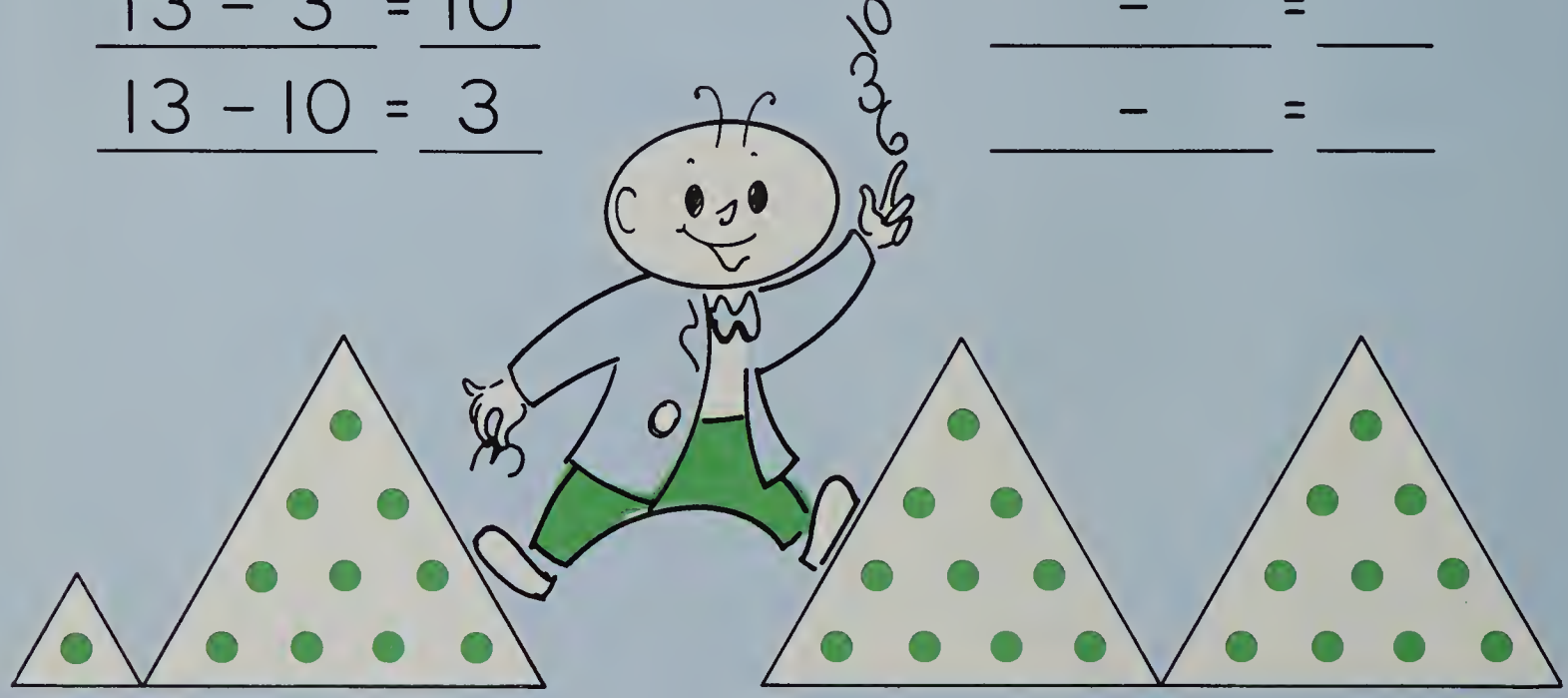
13 − 10 = 3

F. ____ + ____ = ____

____ + ____ = ____

____ − ____ = ____

____ − ____ = ____



G. ____ + ____ = ____

____ − ____ = ____

____ + ____ = ____

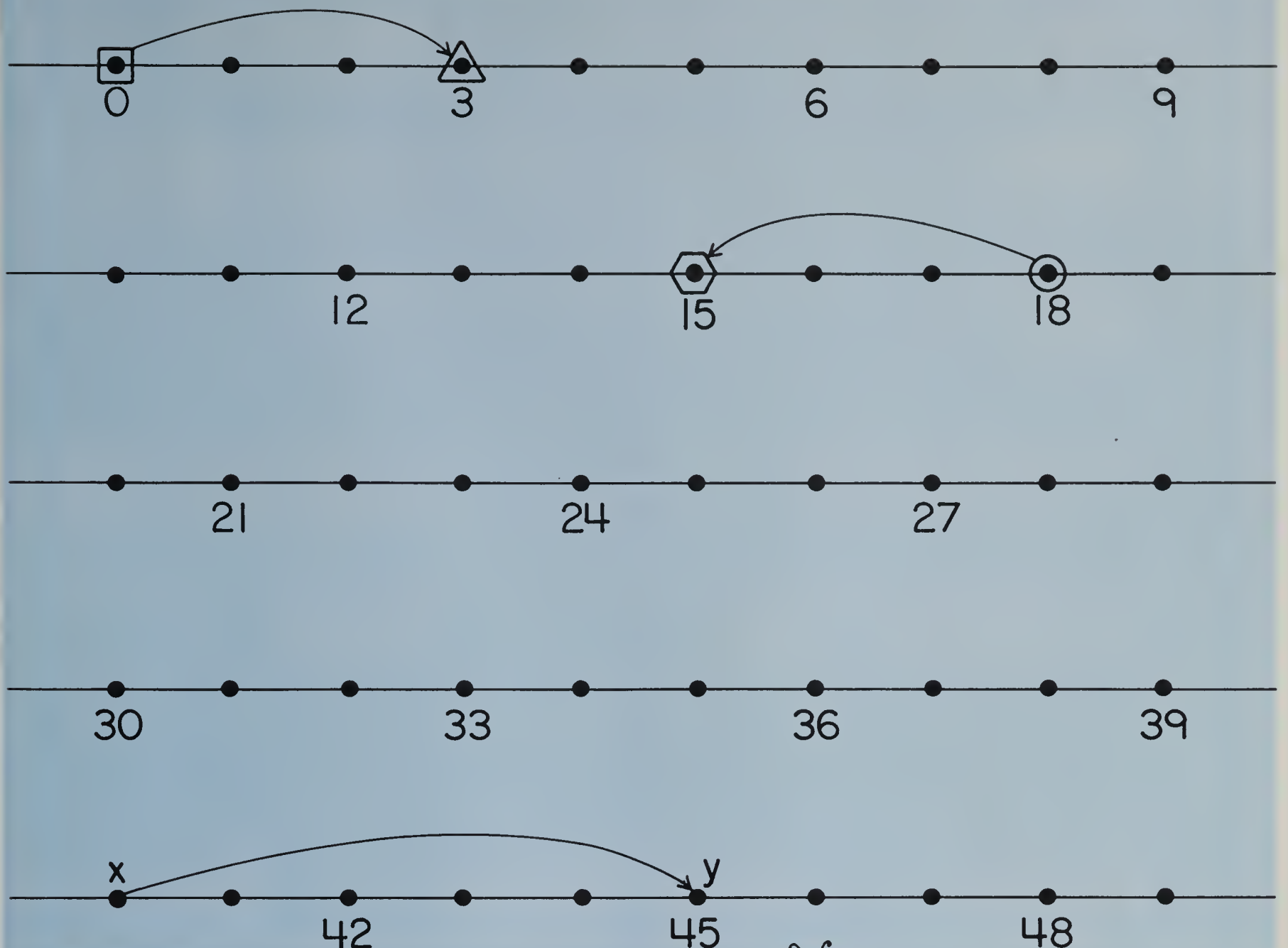
____ − ____ = ____

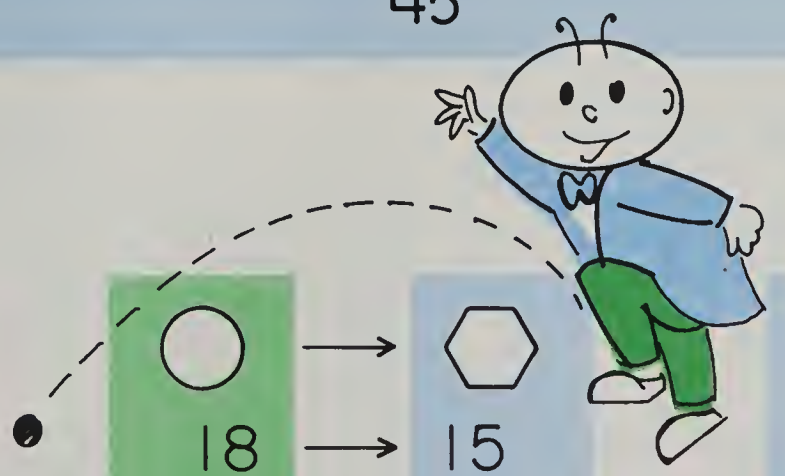
H. ____ + ____ = ____

____ − ____ = ____

____ + ____ = ____

____ − ____ = ____





□	→	△
0	→	3
3	→	6
6	→	
12	→	
33	→	
42	→	

○	→	⬡
18	→	15
24	→	21
13	→	
28	→	
39	→	
	→	45

x	→	y
40	→	45
1	→	6
4	→	
	→	25
37	→	
	→	30

4

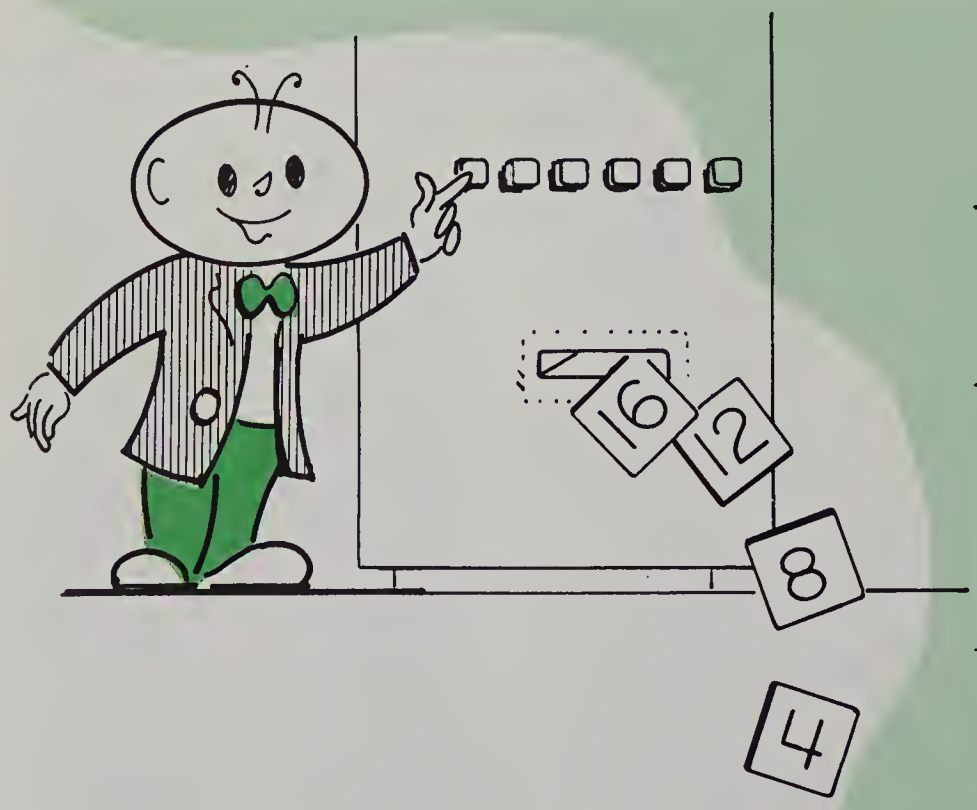
r

s

t

u

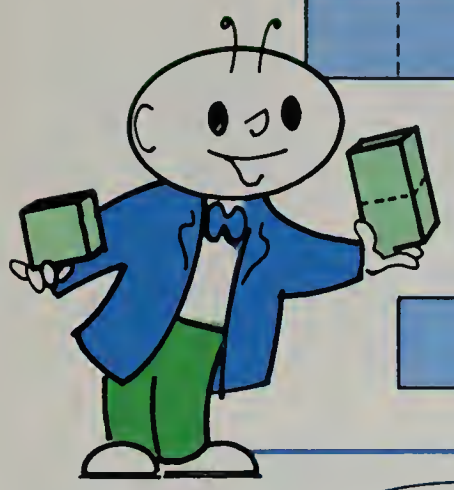
v

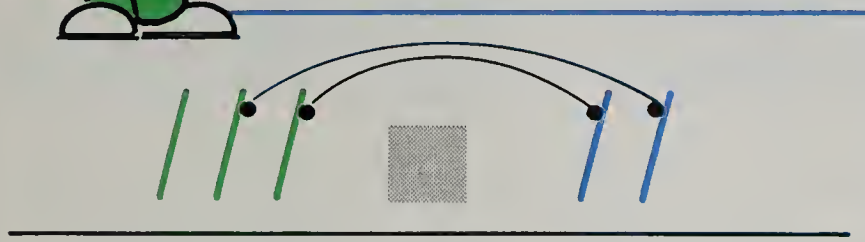


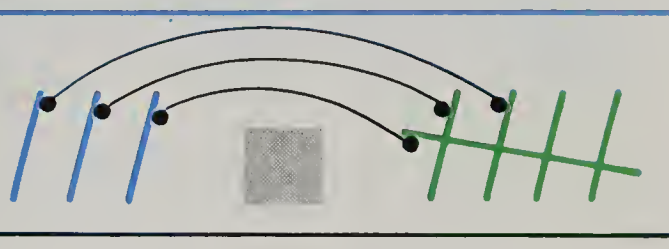
W

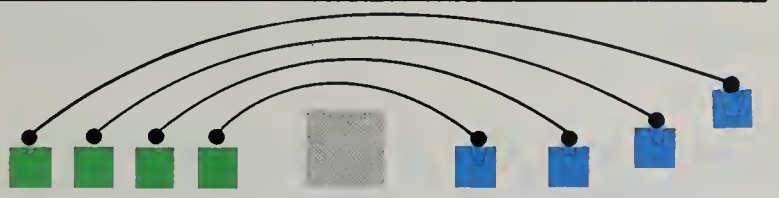
X

> Greater than < Less than = Equal to









3 < ◇

9 ▢ △

12 = ○

3 > ▽

7 ▢ ○

▽ > 10

13 ▢ 13

△ ▢ 7

○ ▢ 10

3+5 ▢ 1+5

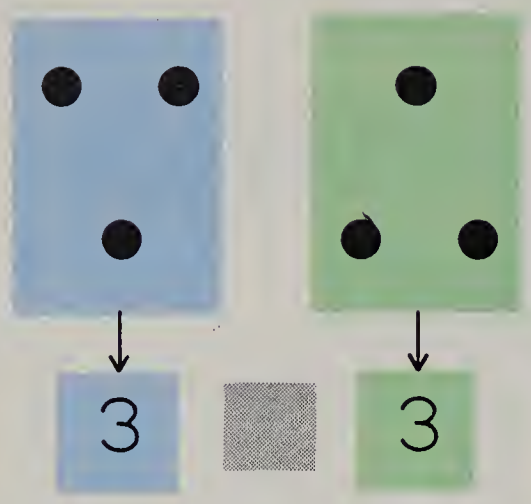
7+4 ▢ 4+7

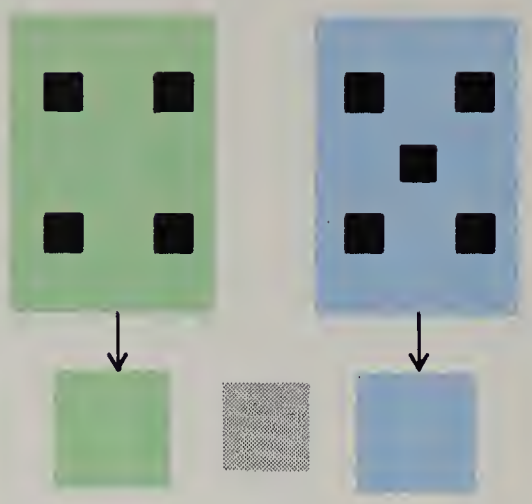
8+2 ▢ 5+2

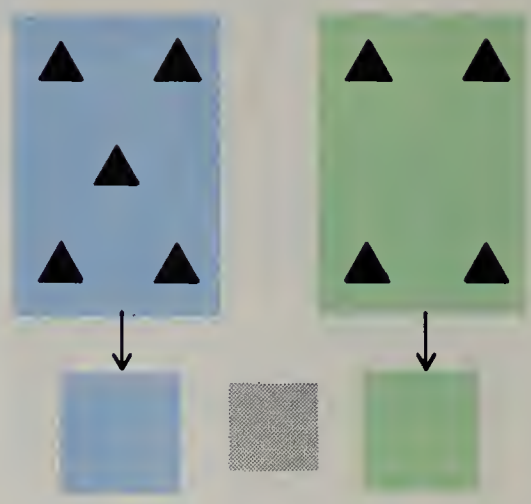
Equal To

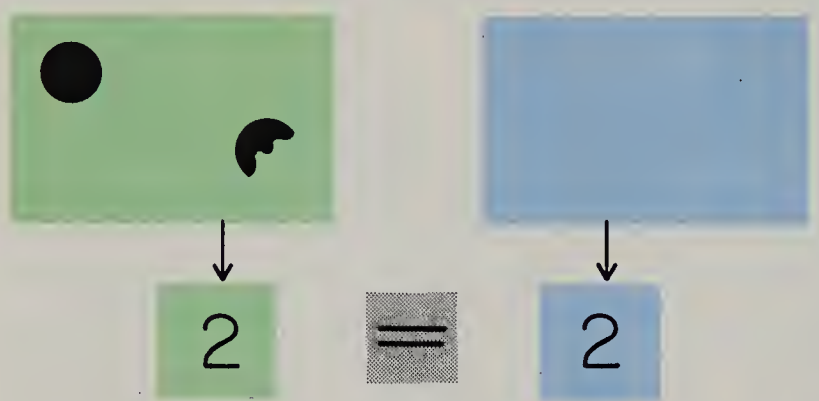
Less Than

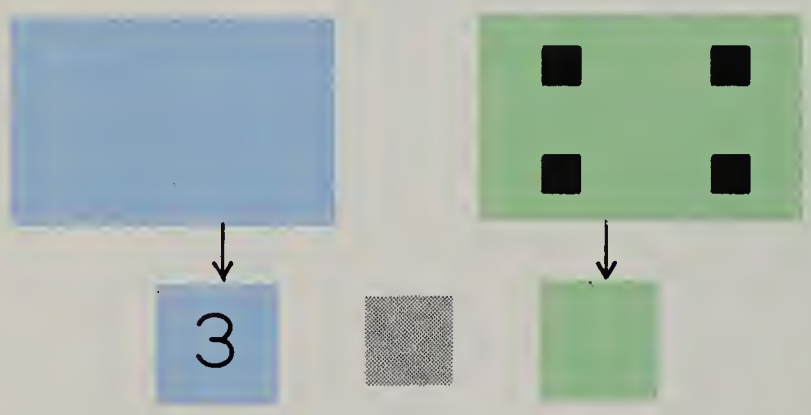
Greater Than

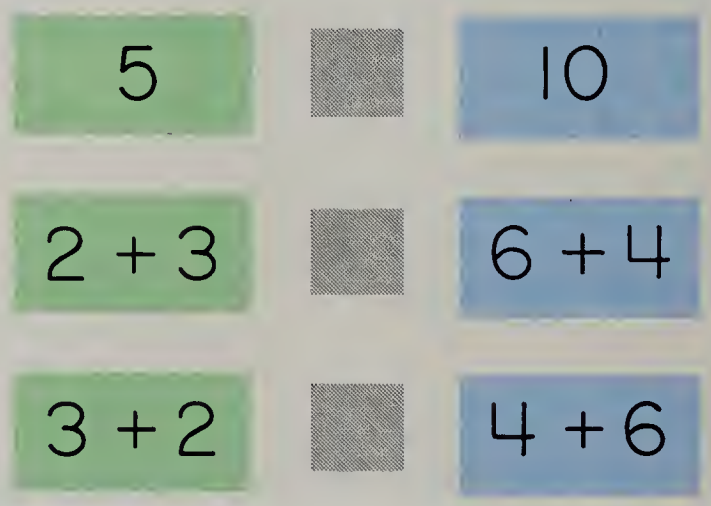


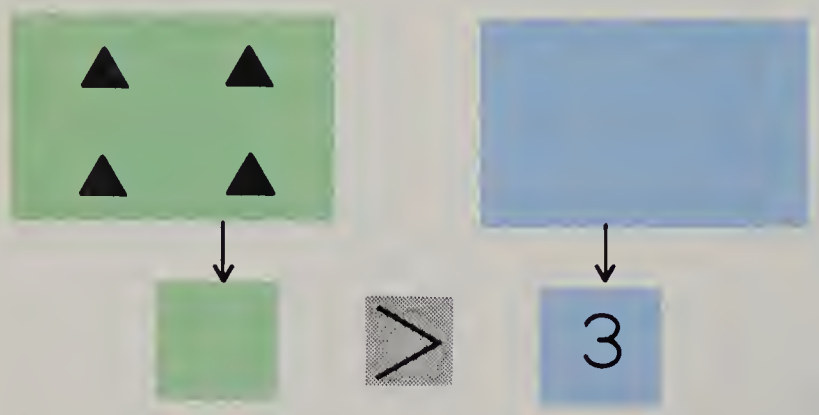


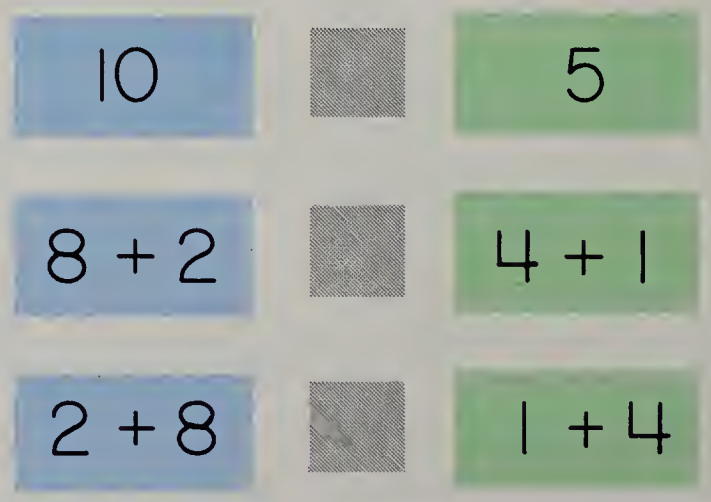


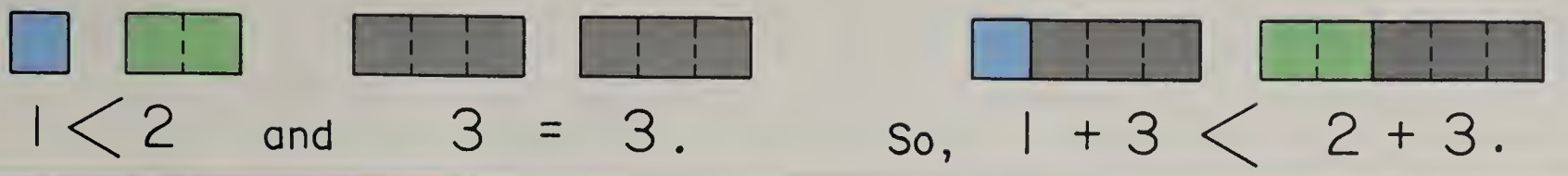










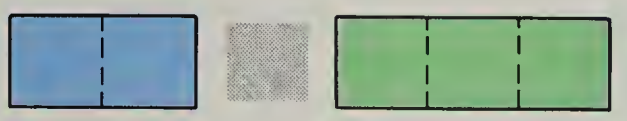


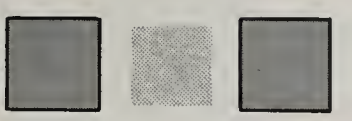
$1 < 2$ and $3 = 3$. So, $1 + 3 < 2 + 3$.

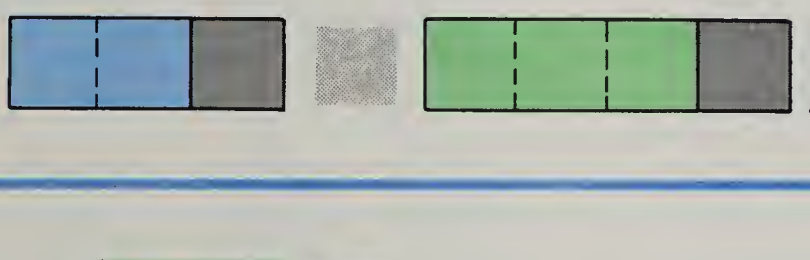
1. $3 > 1$

and $2 \square 2$.

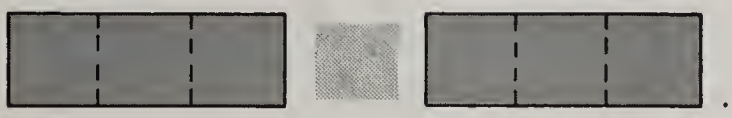
So, $3 + 2 \square 1 + 2$.

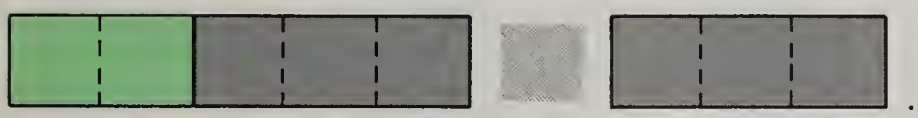
2.  $2 \square 3$

 and $1 = ___$.

 So, $2 + 1 \square 3 + ___$.

3. $___ \square 0$

 and $3 \square ___$.

 So, $2 + ___ \square 0 + ___$.

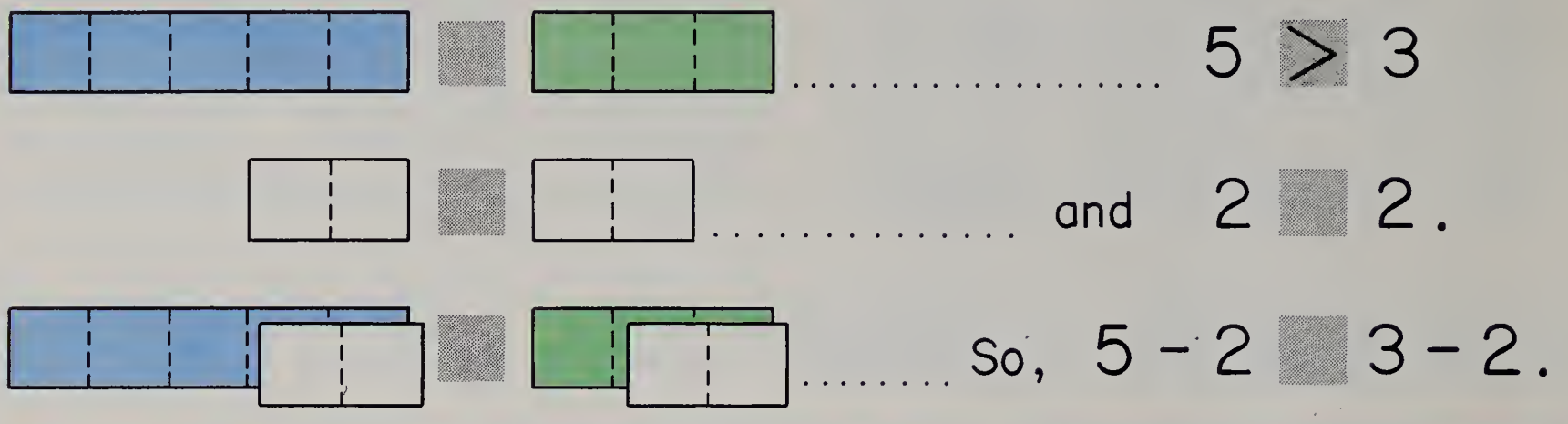
4. $2 \square ___$

$3 \square ___$

$2 + 3 \square _____$

$4 > 3$ and $2 = 2$. So, $4 - 2 > 3 - 2$.

A.

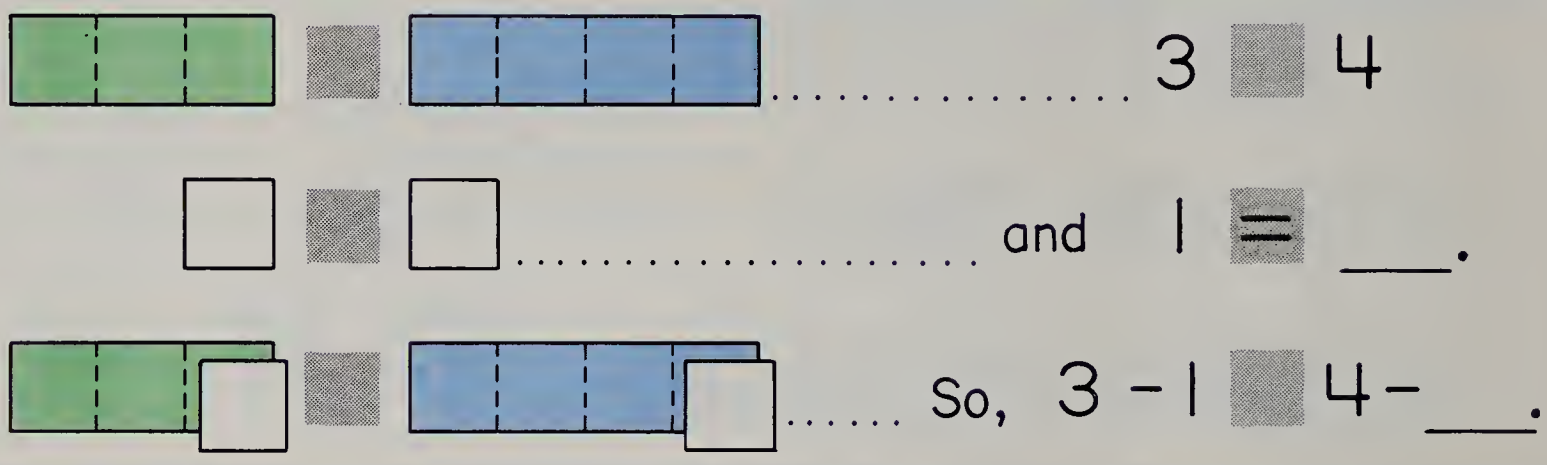


$5 > 3$

and $2 \square 2$.

So, $5 - 2 \square 3 - 2$.

B.

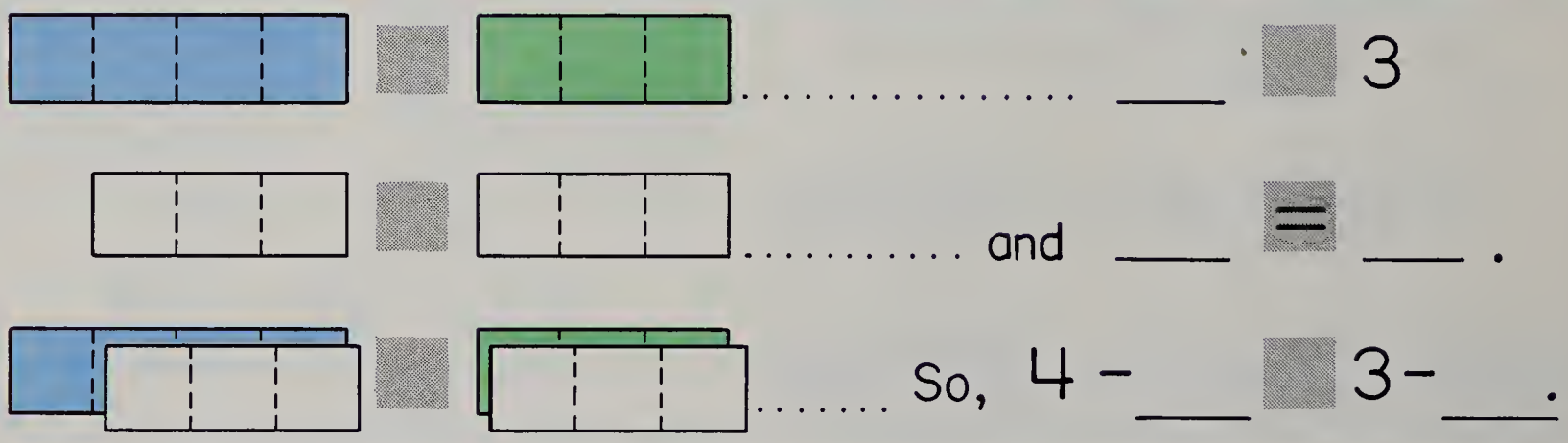


$3 \square 4$

and $1 = ___$.

So, $3 - 1 \square 4 - ___$.

C.

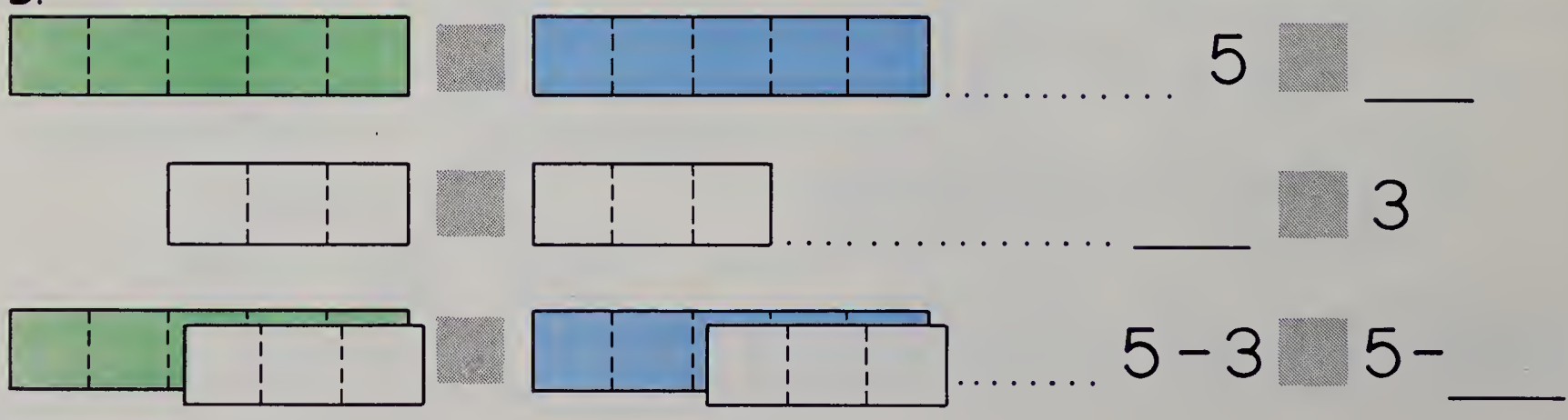


$___ \square 3$

and $___ = ___$.

So, $4 - ___ \square 3 - ___$.

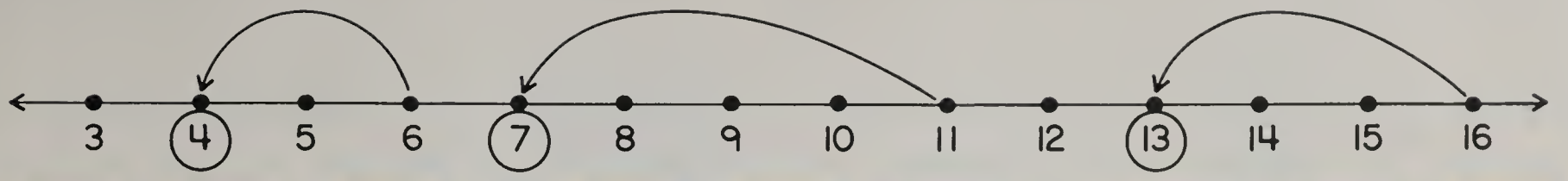
D.



$5 \square ___$

$___ \square 3$

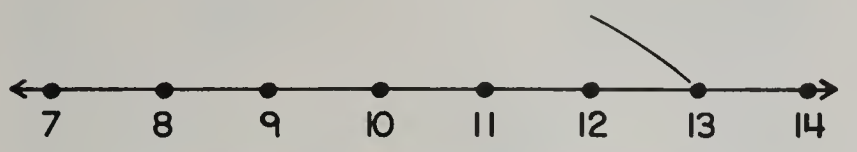
$5 - 3 \square 5 - ___$



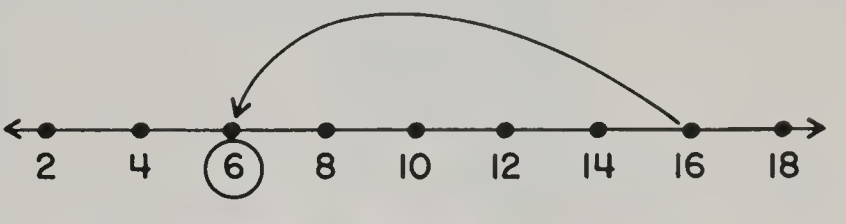
6 − ☐ = ☐

11 − ☐ = ☐

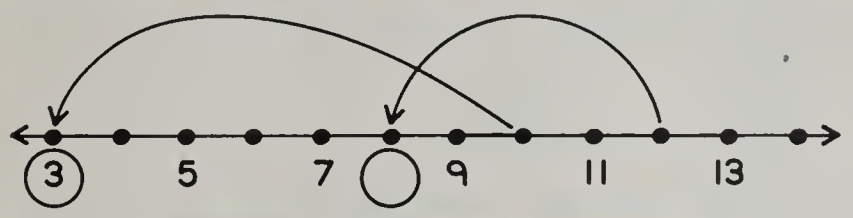
☐ − ☐ = ☐



13 − 4 = ☐

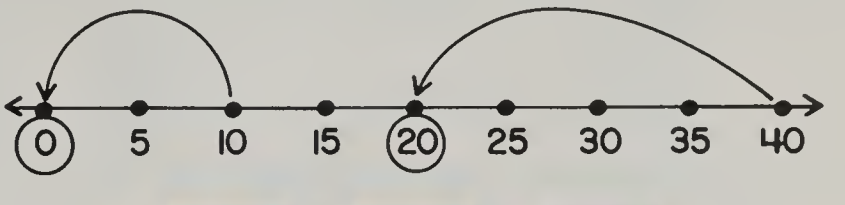


16 − ☐ = 6



10 − ☐ = ☐

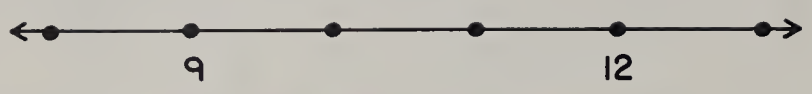
☐ − ☐ = ☐



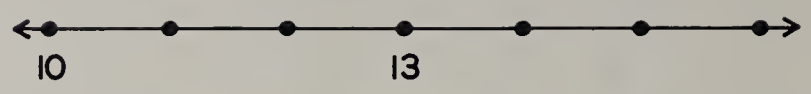
10 − ☐ = ☐

40 − ☐ = ☐

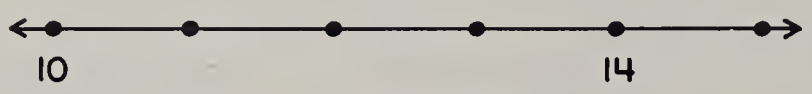
11 − 6 = ☐	5 + ☐ = 11	13 − ☐ = 8	13 − 8 = ☐	15 − 6 = ☐	☐ − 9 = 6
☐ − 10 = 7	7 + ☐ = 17	18 − ☐ = 5	18 − ☐ = 13	20 − ☐ = 14	☐ − 14 = 6



12 − 2 = ☐

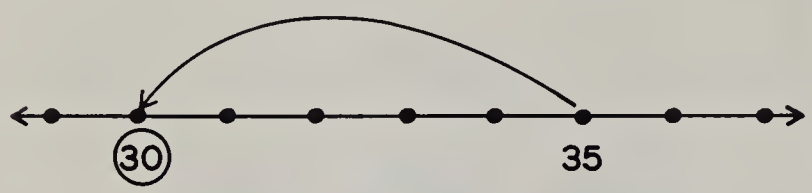


16 − ☐ = 10

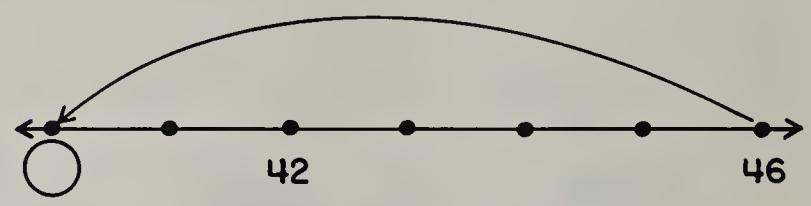


☐ − 4 = 10

25 − 5 = ☐



☐ − ☐ = ☐



☐ − ☐ = ☐

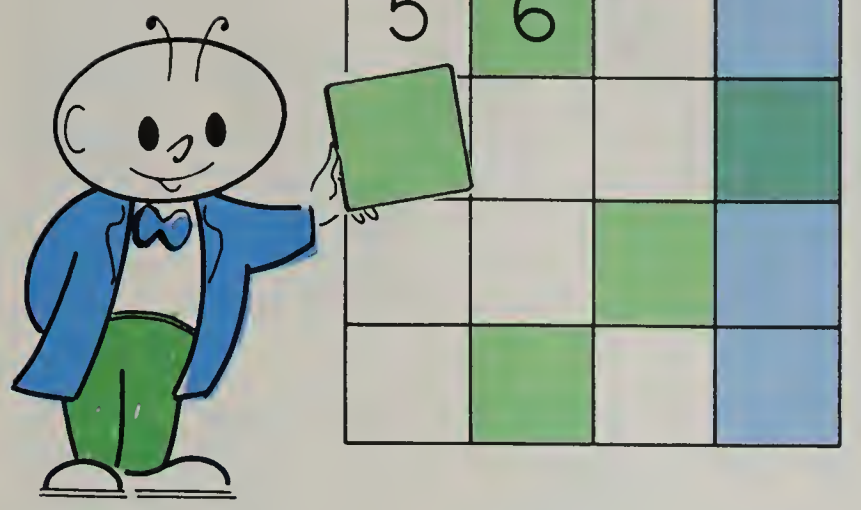
55 − ☐ = 50 ☐ − 6 = 50 58 − 8 = ☐

12 − ☐ = 8 ☐ − 4 = 21 ☐ − 3 = 43

☐ − 3 = 9 36 − 4 = ☐ 41 − ☐ = 41

24 − ☐ = 19 37 − ☐ = 29 58 − 6 = ☐

U.

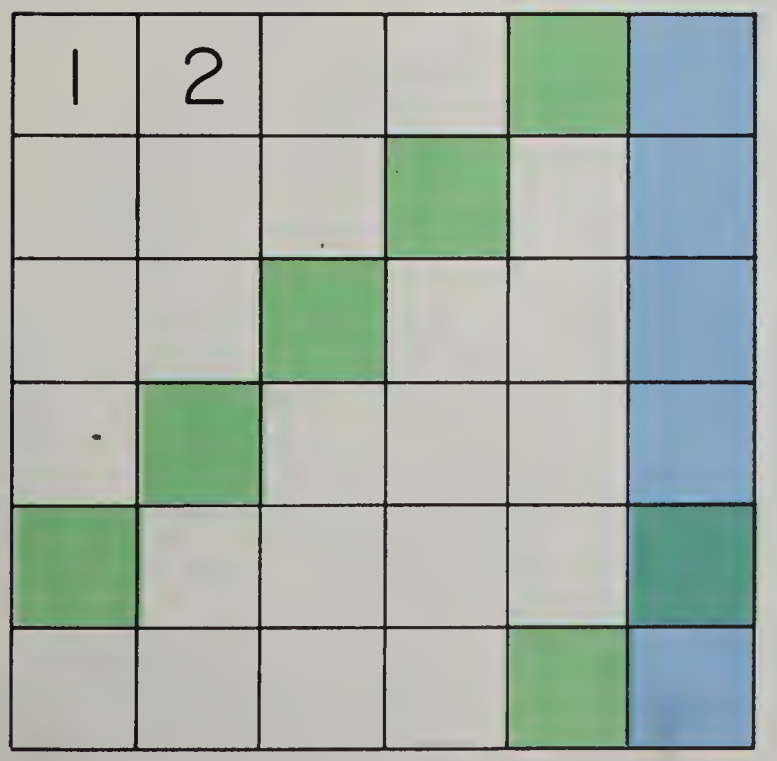


V.

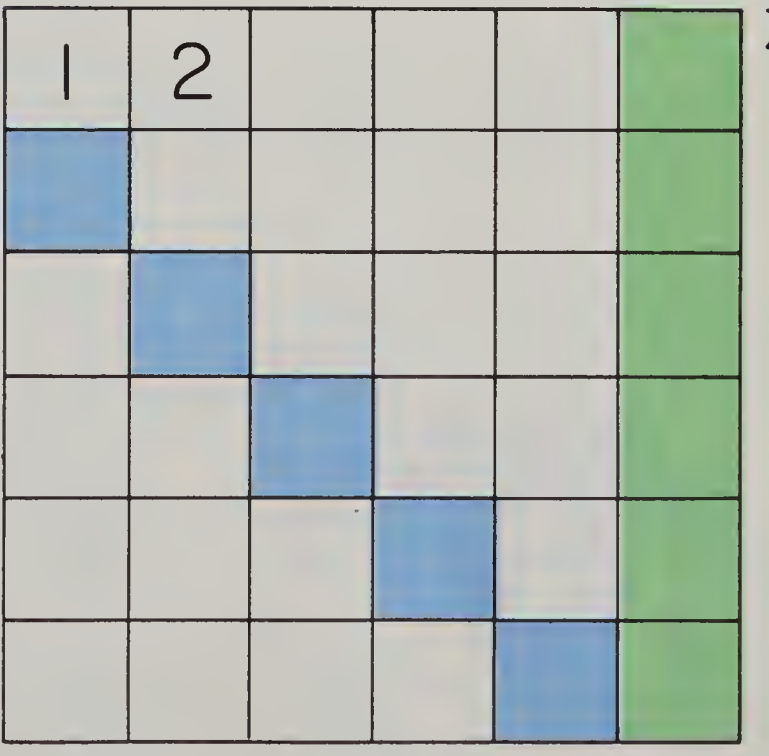
W.

X.

Y.



Z.



A.

1	2		4	5
		8		10

B.

1	2				6		8

C.

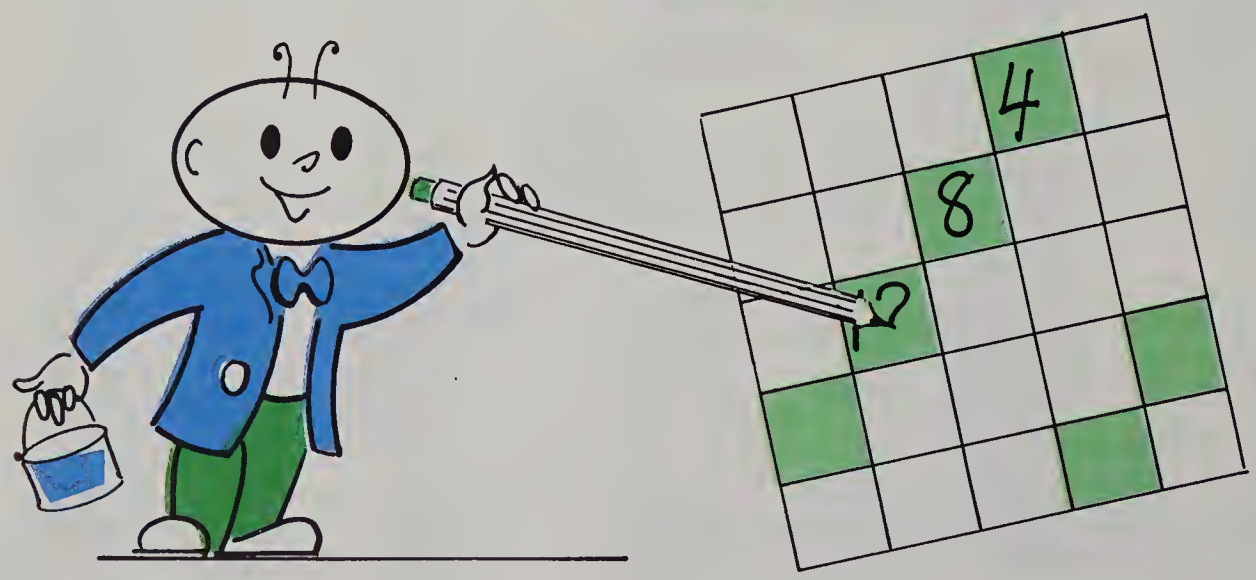
1	2				

D.

1	2					

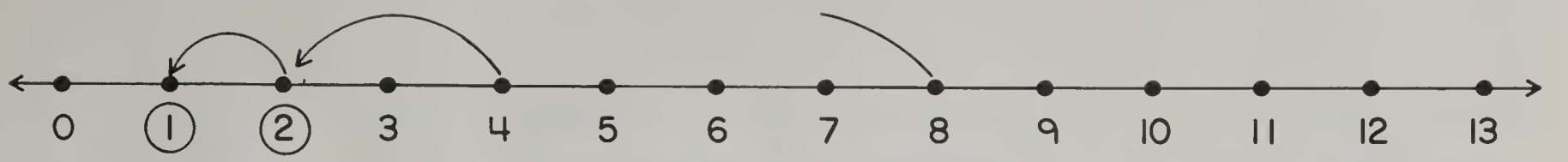
E.

1	2							

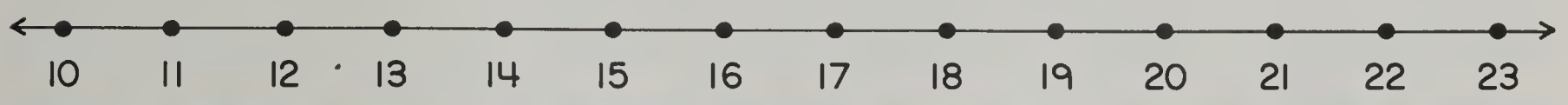


F.

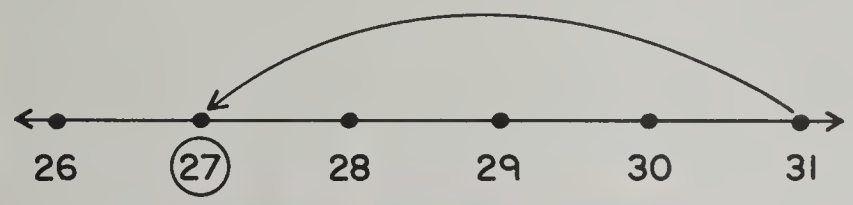
1	11
2	
3	



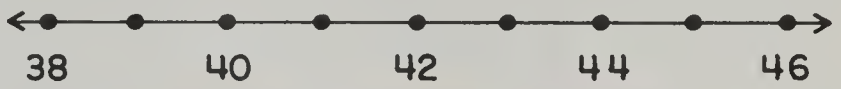
$2 - 1 = 1$ $\quad 4 - 2 = \square$ $\quad 8 - 3 = \square$



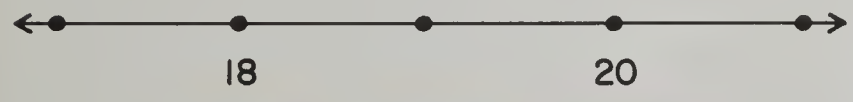
$11 - 1 = \square$ $\quad 14 - 2 = \square$ $\quad 21 - 3 = \square$



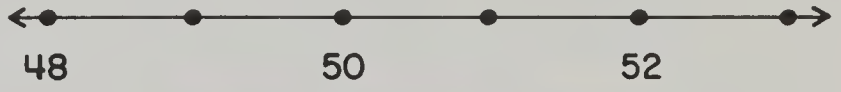
$31 - \square = \square$



$45 - \square = 38$



$\square - 4 = 17$



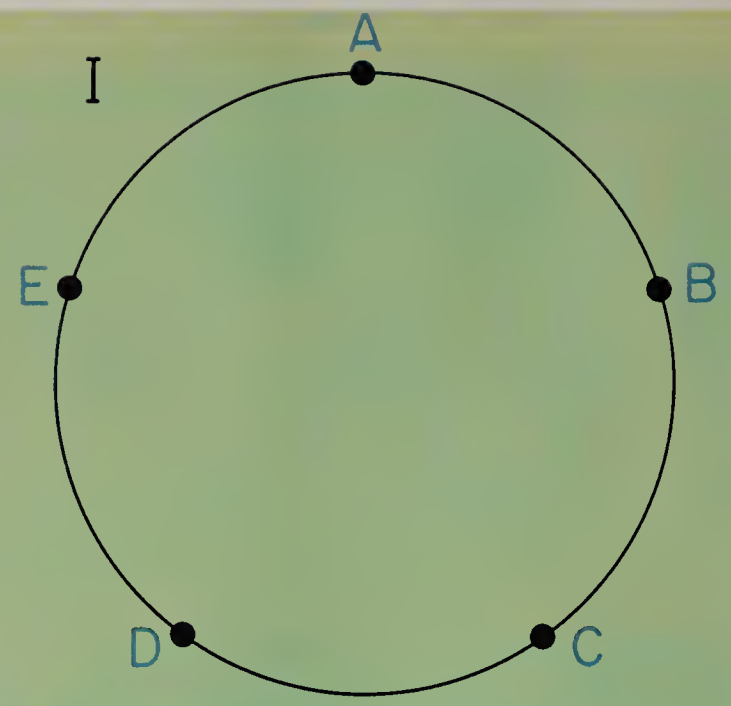
$53 - \square = 49$

$\square - 1 = 1$ $\quad 11 - \square = 1$ $\quad 31 - \square = 28$

$4 - 3 = \square$ $\quad \square - 6 = 7$ $\quad 46 - \square = 42$

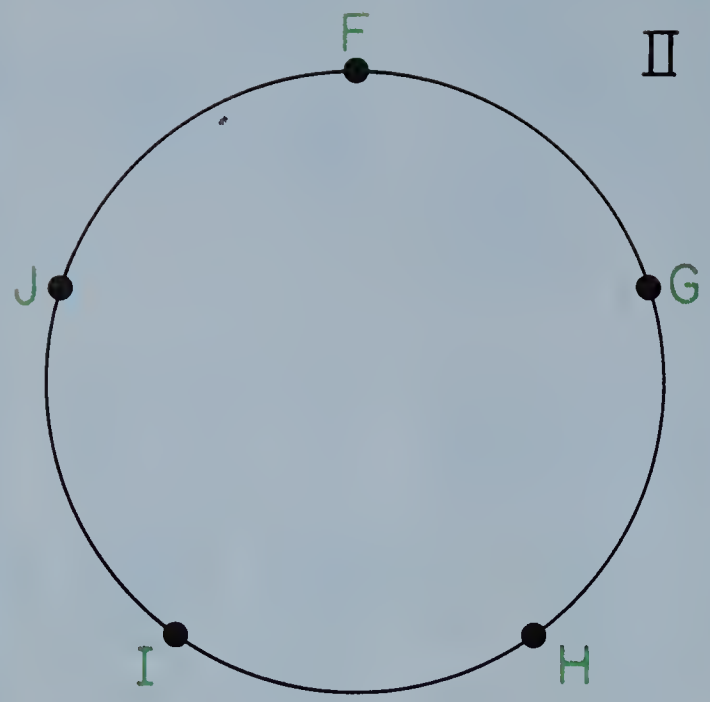
$8 - \square = 3$ $\quad 18 - 5 = \square$ $\quad \square - 0 = 50$

I



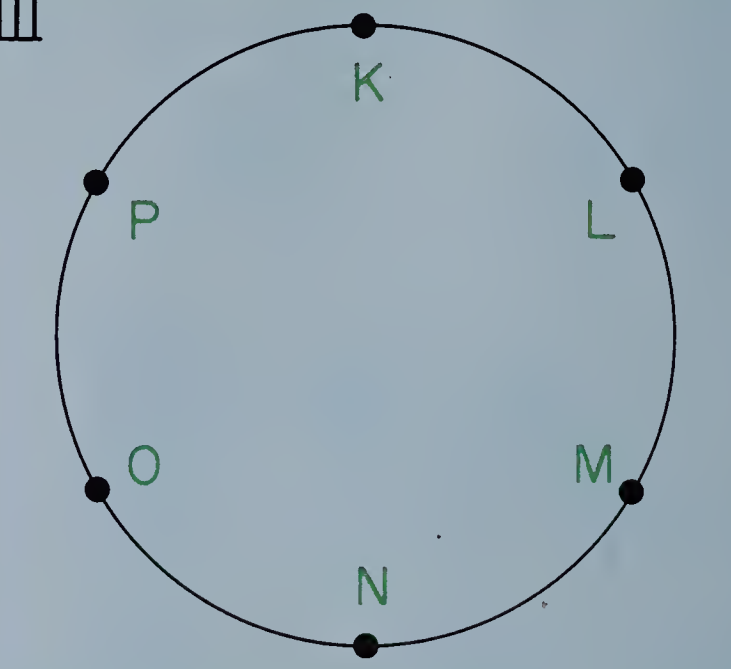
AB, BC, CD, DE and EA

II



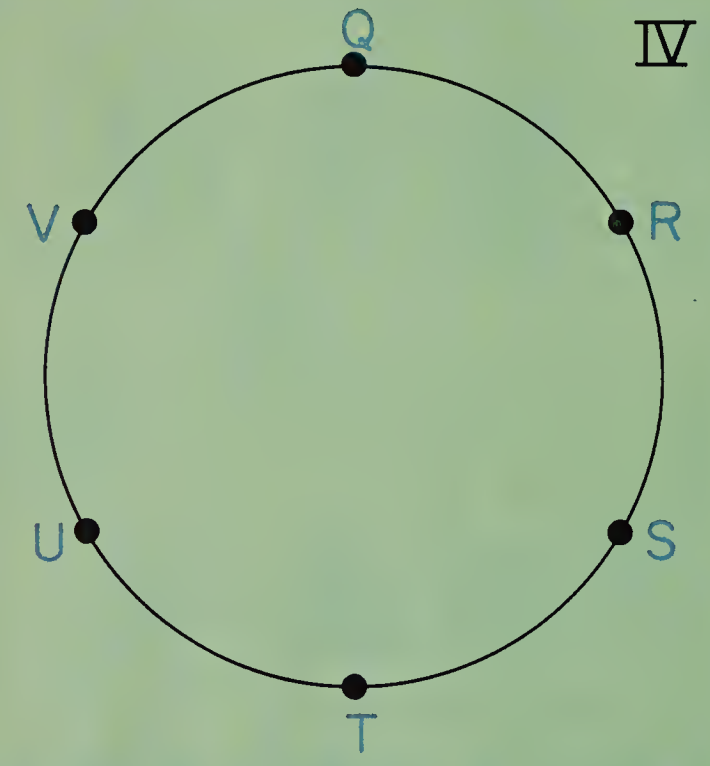
FH, HJ, JG, GI and IF

III



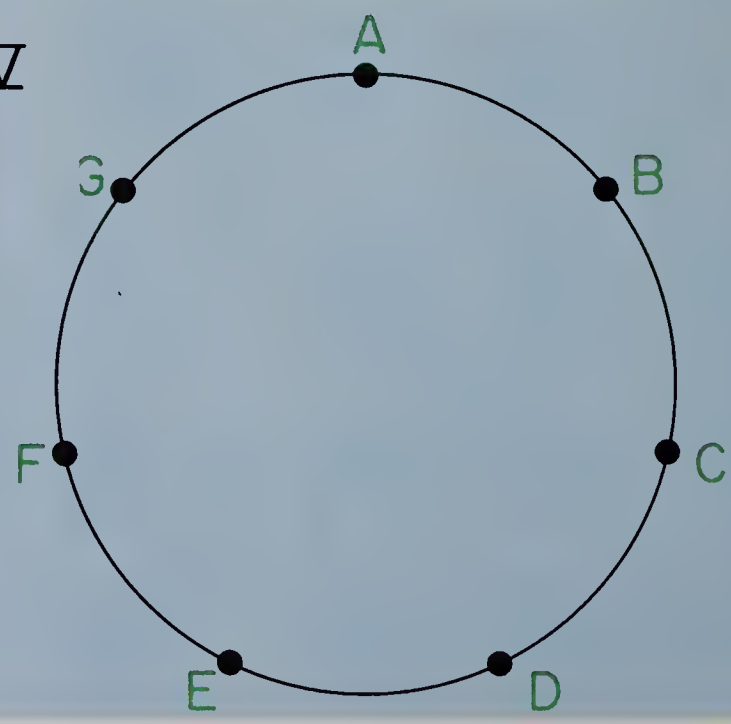
KL, LM, MN, NO, OP and PK

IV

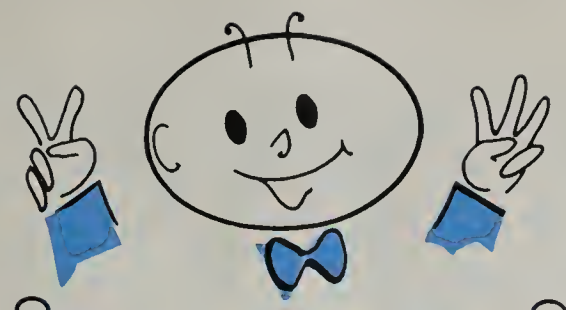


QS, SU, UQ, VR, RT and TV

V

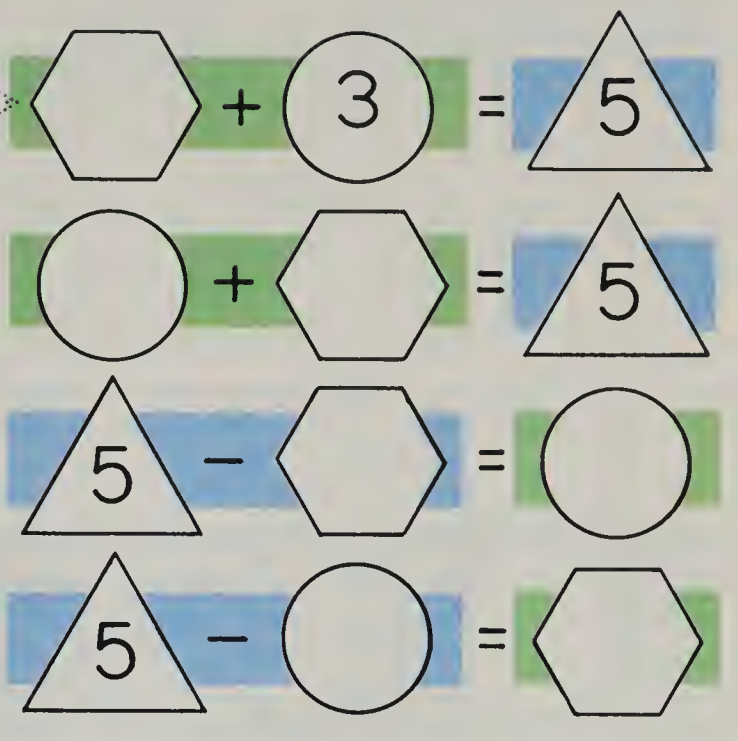


AD, DG, GC, CF, FB, BE and EA



5 + 2 = ___ ___ + 3 = 5

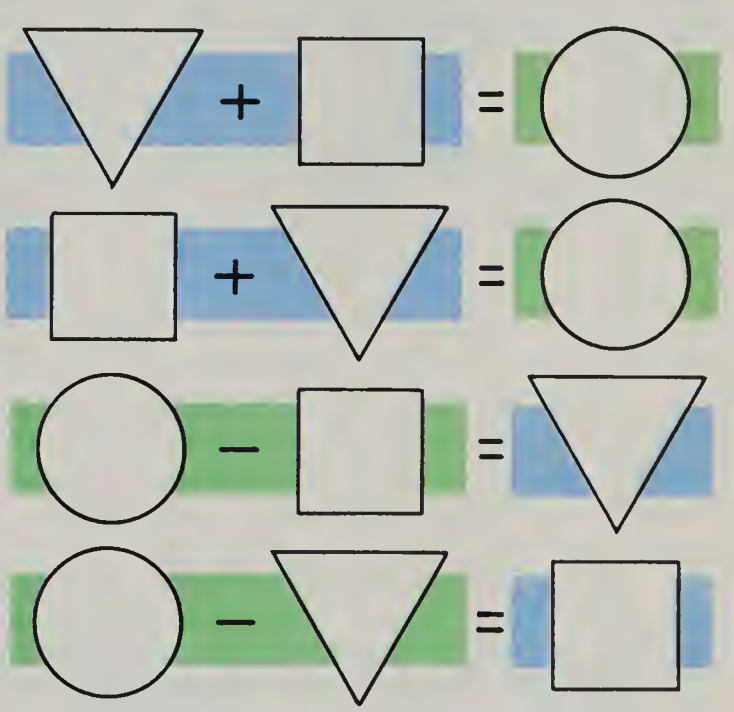
___ - 5 = 2 6 - ___ = 5



I have five pets. Two are dogs. The others are kittens.

7 - ___ = 3 3 + ___ = 10

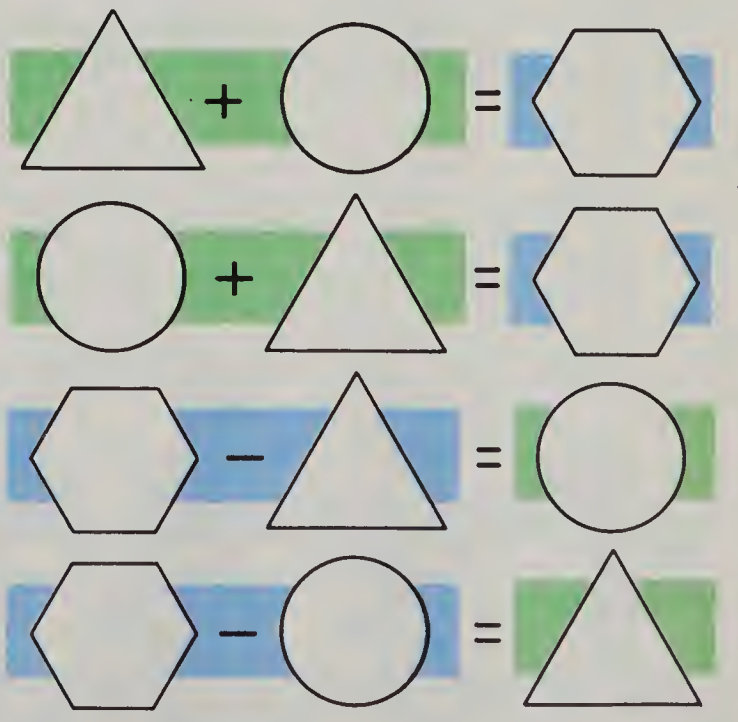
___ + 3 = 7 9 = 7 + ___



On our street, all the houses are blue or brown. Seven are blue. Three are brown.

6 + ___ = 13 6 - 1 = ___

1 + 7 = ___ ___ - 6 = 6



Mary had six books. Her sister had one more than Mary. How many did they have together?

8 − ○ = ⬡

⬡ + ○ = 8

□ − △ = ○

There were seven girls at the party. Two left early.

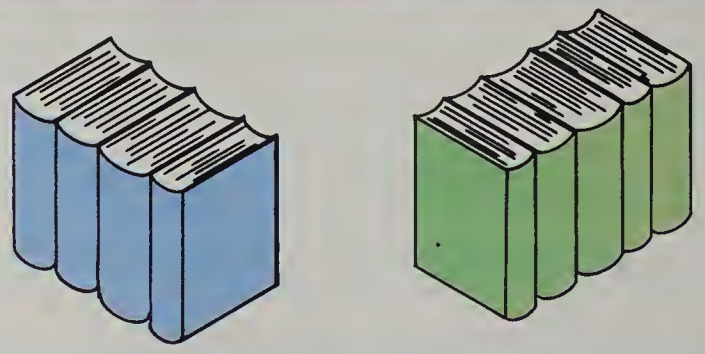
○ + △ = □

⬡ + ⬡ = △

Bill and Jim each had the same number of pennies. Together they had fourteen pennies.

△ − ⬡ = ⬡

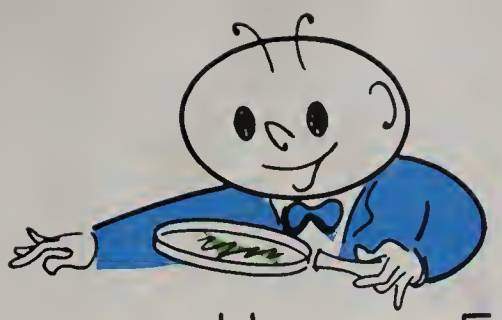
○ + □ = ⬡



⬡ − ○ = □

Mary lived four blocks from school. She walked both ways. How far did she walk each day ?

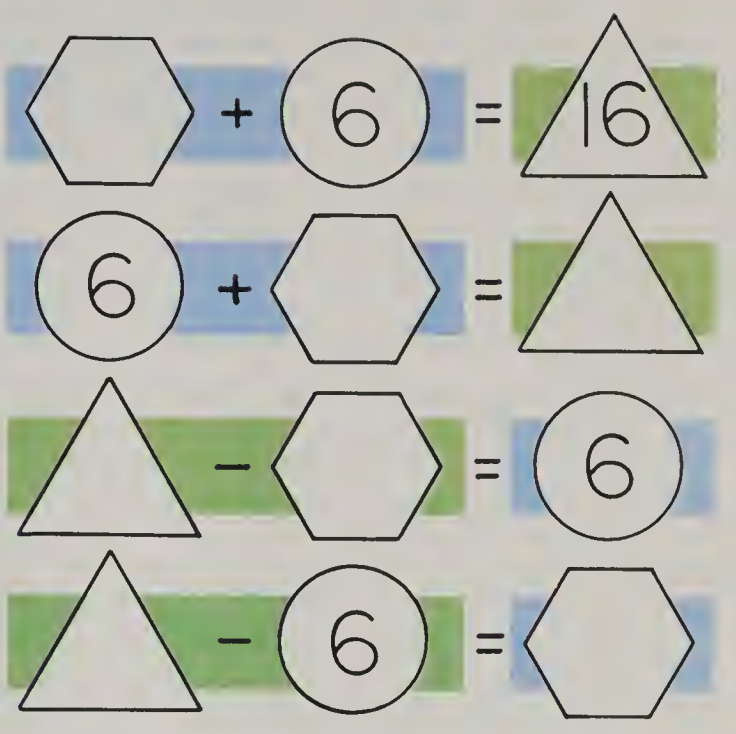
My birthday is two weeks from today. How many days is that ?



10 - ___ = 4 　　5 + ___ = 10

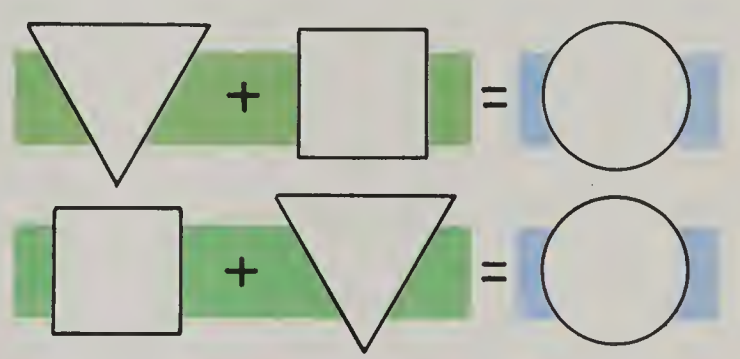
8 + 9 = ___ 　　___ + 6 = 16

I have ten cents. I need six more cents so I can buy a set of pencils.

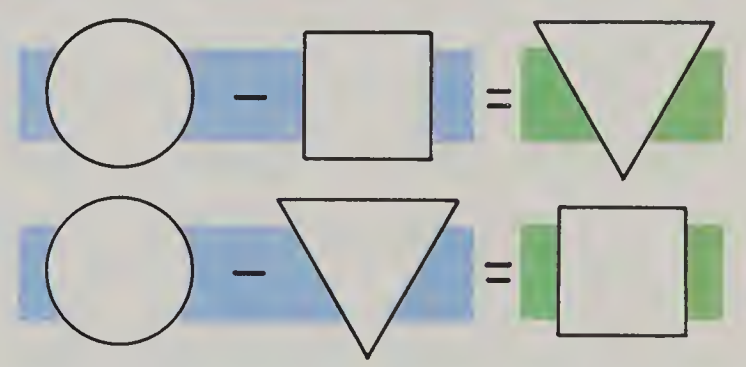


15 + ___ = 20 　　7 + 7 = ___

10 + 10 = ___ 　　20 - 3 = ___



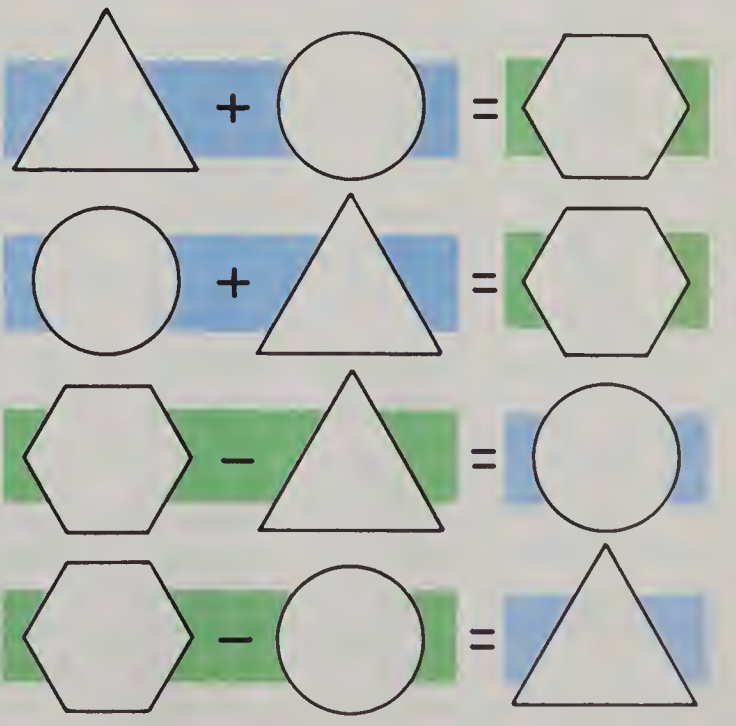
In my brother's class there are twenty children. There is the same number of girls as boys.



___ - 7 = 4 　　7 + 5 = ___

12 - 6 = ___ 　　12 + ___ = 15

Mother baked twelve cup cakes. Some are blue. The rest are yellow. There are two more blue than yellow cup cakes.



Connect:

A B F H C D E H A C E F G H B D F G

E

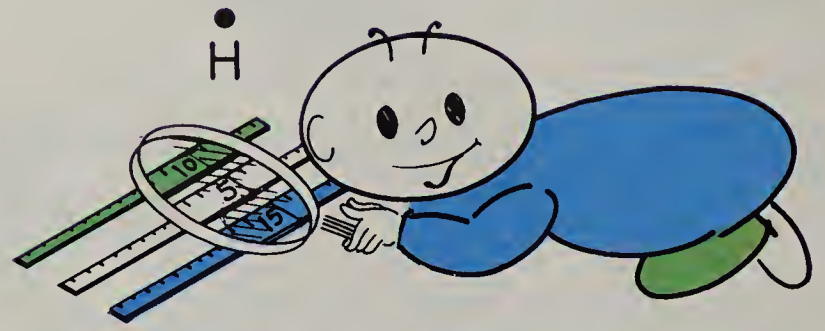
F

D

C

H

G



A B

	F H	F G	G H	A C	A B	E F	E H	B D	C D
Black	5								
Green	10								
Blue	15								

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